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"The American Farmer." Its Origin and Founder.

Who in North America does not esteem with veneration THE AMERICAN FARMER, the first American periodical devoted to agriculture—scientific or improved farming—and honor its illustrious founder, Col. John Stuart Skinner, of Baltimore, Md.? Perhaps the readers of THE AMERICAN FARMER may be interested in reading a sketch of the origin of the periodical. Soon after the close of the war (of 1812) breadstuffs naturally declined in prices, and agriculture was at a low ebb in the Middle States. The soil, too, was becoming gradually exhausted, especially in Maryland, whose tobacco crops had paid so many of the drafts for foreign supplies during the revolution. No other commonwealth in the world is so beneficently bounded and indented by navigable water—or so abounds in calcareous and other rich fertilizing substances—or is so capable of easy culture and recuperation. Yet in a few years after the silver-toned trumpet of peace echoed along her shores, Maryland fell into an agricultural paralysis. As her sons grew up they moved away to "wear out" in its turn the fertile prairies of the West, and the old homestead mansions, often sadly out of repair, were swarming with maiden daughters, many of them so beautiful and so excellent that no change could have improved them, save a change of name.

An ardent lover of his native State, and sensibly alive to her stagnant condition, Col. Skinner had the sagacity to foresee that a continuation of this position of things must be productive of consequences not only ruinous, but destructive. An able series of papers signed "Arator" (from the pen of Col. John Taylor, of Caroline, Virginia), led him to investigate the subject, and the avidity with which these essays were read when republished in book form, edition after edition, led him to conceive the idea of establishing an agricultural paper. Happy thought! Every political party, every religious sect, every prominent business locality used the mighty engine of civilization, but the farmers, that immense majority of citizens, had no "organ." In supplying this want Mr. Skinner supplied the first germ of modern agriculture, which thenceforth begun to soar up, Phoenix like, from the ashes of a wrong popular judgment.

THE AMERICAN FARMER was pronounced by all an excellent title, and after long consultations with Mr. Joseph Robinson, the printer, nothing was wanting but a "motto," then considered an indispensable part of a newspaper heading. Just then Mr. Skinner met at an hospitable dinner table a clergyman from the Green Isle, who was well versed in classical lore. His aid was solicited, and he promptly replied: "Och, sir, yes! You may give them from Virgil, 'O fortunatos nimium sua ei bona norint agricolas.'" The motto was approved and retained so long as I kept acquainted with the paper.

Number one of the new paper appeared on Friday, the second day of April, 1819, the date having been changed from the first, in fear that it might be ridiculed as an "April

fool" enterprise. It was a neatly printed quarto sheet of eight pages, each page measuring nine by eleven inches. It was illustrated with an engraving of the ox "Columbus" and contained interesting articles on rural economy, amusements, etc., with a "summary of intelligence," and a "price current."

THE AMERICAN FARMER at once gained a respectable list of subscribers at four dollars per annum. Mr. Cobbet, at this time, was farming on Long Island, and Mr. Skinner published several able articles from his pen on the Ruta Baga, seed of which "the Radical" sent to Baltimore by his man-servant, and sold in considerable quantities. The volume was illustrated with engravings often costing forty to fifty dollars.

Prior to and during Mr. Skinner's career as editor of THE AMERICAN FARMER he was Postmaster of Baltimore, and diligently attending to his postal duties, his editorial labors were mostly performed in the evening.

Such was the success of THE AMERICAN FARMER that other agricultural journals were established: The Plough Boy, at Albany, was edited by Solomon Southwick, Esq., and the New England Farmer, at Boston, by Thomas Green Fessenden, Esq., a gentleman of rare abilities, but these were necessarily local, and as a national agricultural journal THE AMERICAN FARMER maintained its superiority.

"Internal improvements" was a conspicuous portion of the sub-title of THE AMERICAN FARMER, for Col. Skinner was early of the opinion that cheap, and safe, and quick transportation, was indispensable to agricultural prosperity. This department was profusely illustrated with engravings from English publications, giving thousands their first ideas of railways, locomotive engines, etc. So sensible was the Maryland Society for Internal Improvement of the valuable services of the paper, and the exertions of its editor, that in April, 1825, they invited him to edit and publish a quarterly journal, intended to promote the erection of public works.

On the 13th of March, 1829, Col. Skinner published the last number of the 10th volume of THE AMERICAN FARMER, then in a flourishing condition, with patrons in every State in the Union. Conceived in a laudable desire to do good—conducted with a view to the promotion of national prosperity—dedicated to the interests of a hitherto neglected majority of citizens, the periodical established as an experiment had become a "fixed fact," commanding universal admiration. The pioneer editor, by unflagging industry, had now reared ten monuments upon the broad area of industrial improvement, each volume bearing tokens of his ability, his energy and his patriotism, as indelible as they were distinct. A score of other agricultural journals had sprung into existence, but THE AMERICAN FARMER retained its superiority, ever holding forth a beacon-light to imitators. Let it ever be remembered that Col. Skinner's was "the first voice that was heard claiming for agriculture its rights as a science." His light gleamed alone, but brightly and steadily, amid the dark mists of ignorance and prejudice; and even now—

now when the land is illuminated by a thousand—that same torch, in other hands, is burning and blazing with a pure and brilliant flame.

The want of a repository in this country, like the English *Sporting Magazine*, to serve as an authentic record of the performances and pedigrees of the thoroughbred horse, was admitted by all, whether breeders, owners, or amateurs, of that admirable animal. To supply this want a *Turf Register* was made the basis of a new periodical work—the *American Turf Register and Sporting Magazine*. The first number appeared in August, 1829. Like THE AMERICAN FARMER it entered an untrodden path of periodical literature, but it proved to be a success. Enthusiastically devoted to field sports, Col. Skinner was so much interested in the *Turf Register* that he was induced to dispose of THE AMERICAN FARMER for \$20,000. It was purchased, (if I am not mistaken), by Mr. Hitchcock, and was edited by Gideon B. Smith, Esq., but again changed hands before it came into possession of Samuel Sands, Esq., who, with his son, now conducts it with marked ability and industry.

Subsequently, Col. Skinner projected and edited a periodical called the *Farmers' Library and Monthly Journal of Agriculture*. The first issue appeared in July, 1845. After three volumes had been published in New York by Messrs. Greely & McElrath, Col. Skinner purchased and removed it to Philadelphia and gave it a new title—*The Plough, The Loom, and the Anvil*. He continued its publication until the time of his tragic death, which occurred the 21st of March, 1851.

The foregoing is a truthful synopsis of the history of the grand old AMERICAN FARMER. Long may it wave over the land in the same character it has ever done since it was ushered into existence. C. J. ROBINSON.

Tioga County, N. Y.

Smaller Farms and Better Ones—The Great Need of Virginia.

(Conclusion of Essay by CAPT. W. H. SNOWDEN.)

Most assuredly the time has passed for careless, slipshod farming to pay. Powerful competition is fast superseding it with a better system. To succeed now-a-days the farmer must be no laggard in the steps of his fathers and grandfathers. He has got to be a wide-awake, thinking, observing, reading man. He must keep himself well posted in all the agricultural improvements of the day all over the world. If he be not a working man himself, with his shoulder always foremost at the wheel, he must be entirely competent to direct and look after his work, and must know from day to day just how all the details of his business are going on. More than all this, he must have his calling at heart and delight in it for its own sake, and not feel that he is dragging it along as a burdensome thing, hoping and looking all the time for something more congenial to turn up. He must not envy the man of his acquaintance who by hook or crook in political maneuvering has secured for himself some petty township or county office, the tenure of which depends on the

sacrifice of personal independence and integrity. He must not covet the position of the man who weighs sugar, measures dry goods, keeps books in a counting-house, or leads a life of constant alarm in the governmental departments in Washington or elsewhere in our land.

The typical man in our agriculture now is the sound, intelligent farmer who believes that progress is the law of our race; who holds that no man of enterprise can afford to stand still while the world goes forward; that inactivity means simply stagnation and decay, and that the surest proof of vitality and vigor, both of muscle and brain, is the steady forward movement of wise and practical men who are always intent on working out better methods, and always ready and willing to enrich the world with the fruits of their experience. Whenever such farmers, in the course of their investigations, succeed in bringing to light new facts or new processes, they give a fresh impulse to husbandry and make the country their debtor. These are the men who, by improved methods and by increased production, are creating from year to year new values in agriculture and new sources of State and National wealth.

The proper cultivation of small rich farms has so many advantages over large poor ones that it is really strange more of our farmers do not adopt the system. We think it were far better for the proprietor of the many poor acres if he would help deserving beginners to some of his unproductive wastes, and let them redeem them and so enhance the value of his own reservation.

It is true enough that we cannot have immense returns from a farm if we do not have a commensurate amount of land. We cannot expect to garner six or eight hundred bushels of wheat, rye, corn, etc., from a fifty-acre farm. Nevertheless, the profits from a farm are not always, or very frequently not, the result of large areas. It is in the thorough cultivation of the land we have, be it one, two or twenty acres, or more, and the making the best of every product, where the profit and success come in. We may have hundreds of acres of land, but they may be unproductive and unprofitable for the reason that we do not possess the means of properly developing their possibilities. Hence, while we may have capital enough to run a moderate sized farm in the best manner, causing it to yield double the crops that we could look for per acre from five or six times the quantity of land, we should utterly fail to make the large farm profitable at all. But, on the other hand, we should find it year after year making us poorer and poorer until we should be completely swamped by it. Just look at this simple statement: If a capital of five thousand dollars expended in the cultivation of two hundred acres will only yield a profit of five hundred dollars, while if it were applied to fifty acres it would produce a profit of two thousand dollars, it is clear that the income would be increased by diminishing the quantity of land.

The prudent man will start only with such a sized farm as he possesses the means of

conducting in such a way that it will produce the largest return from the money invested. He will see then that he is early gaining pecuniary strength, and this will relieve him from any fears that he will be likely to go down hill, while the facts are before him as clearly as they are undeniable that he is steadily laying the foundation for his prosperity and increasing success.

And now, in conclusion, we desire to reiterate in brief some of the principal points we have been urging through our essay.

The beginner with limited means must not aspire to suddenly become a large farmer. He must be content to wait, watching well in the meantime his opportunities and keeping himself in readiness to improve them. This hard plodding from day to day, this slowly progressing in the race for success will often discourage him, but he must press on. The object to be kept in view by him must be land thoroughly enriched and thoroughly cultivated, and if in the start he provides that his farm limits shall strictly conform to this possibility, whether consisting of one, ten or fifty acres, the start is a good one, and ten to one will secure for him the goal he is aiming for. Many a young man with health and strength, but with ideas too comprehensive and impracticable, has made the fatal mistake of investing every dollar of his patrimony in the purchase of land, only to go bewailing in all his after years that he did not reserve a margin of cash sufficient for improvements and other contingencies. These margins are always found to be a very present help—a very good thing to rally on. In a word, in the long run they mostly save the day.

Every beginner will find it the safest move not to start with too much stock—no more than he can feed without stint; no more than he can in every respect amply provide for. If the nomadic or grazing system be pursued, it will be found that overstocking, and, of course, close pasturing, is ruinous to pastures. If the soiling or stall-feeding system be pursued, whereby four or five times the number of stock can be kept, the manurial resources will soon make it possible and easy to economically increase the stock, while the soil will be rapidly increasing in fertility and the grass lands surely appreciating in value.

Possibilities of Culture.

On page 50 of the last volume of THE AMERICAN FARMER I had a few words for the readers of that journal under the above heading. I now put a stronger light to the same question by giving results of experiments the past season by boys under eighteen years of age in growing corn, resulting from prizes offered by a gentleman of this State. The prizes, nine in number, were competed for, and carried through according to stipulations of the offer by twenty-four of the ninety entries. The conditions, or some of them (I have not the offer at hand, and give from memory) were that the boys were to do the plowing, and all the work of preparation of land, planting, tilling, harvesting, etc. No limit was given in expense of culture, etc., but the greatest weight or bushels of corn gained the prize. Below I give the names, age, etc., of the successful competitors, and the crops, with cost of fertilizer.

Name	Age	Pounds.	Rate per acre, 72 lbs. per bu.	Cost of Fertilizer—about	Price.
P. R. Smith	15	1124 1-3	124 17-18	\$154 00	\$30 00
E. Stone	16	1085	120 5-9	80 00	20 00
C. W. Harris	14	1045	116 1-9	32 00	15 00
J. M. Harton	16	762 3-4	87	78 00	10 00
C. T. Miller	15	629	63 2-9	36 00	5 00
J. B. Stinson	15	624 1-2	62 7-9	8 00	5 00
G. B. Simpson	15	510 1-4	51 1-4	28 00	5 00
C. A. Harris	17	485	48 5-9	32 00	5 00
L. Damon	14	92 1-4	96	120 00	5 00

*Not reported in paper from which this was taken.

The prizes were awarded by a competent committee appointed for the purpose. The

cost of manure and fertilizers was furnished by the contestants, and may not always be exact or comparatively correct, but may be taken as a fair approximation.

I find the foregoing award in a local paper furnished me by a friend. I have no personal knowledge of any of the parties, but saw the offer of prizes last spring reported in the papers. If my memory serves me, the boys were to plant not less than a specified area, but could plant more.

The foregoing report will furnish thought for many old and long experienced farmers. When boys can grow such corn in the old and sterile soil of Massachusetts in such an unfavorable season for arable crops as the past, what are the possibilities of more experienced culture on better soil the average of seasons? W. H. WHITE.

Worcester Co., Mass.

"The Use of Lime" on the Soil.

The term lime strictly belongs only to the product as it comes from the kiln, but since all of its forms are so similar in action, and are included under this name in common use, I must define each of them and state wherein they differ from it. Both for clearness and brevity, I will, therefore, refer to each of these by letters.

FORMS OF "LIME."

A. Lime, whether made from pure or magnesian limestone or from oyster shells is of equal value for agricultural use, provided it may be slaked to a dry powder; however, that made from magnesian limestone is slower in slaking (also slower in air-slaking).

Limestone containing slate cannot be used for mortar, but if carefully burnt (for it might be over burnt), it is of agricultural value, just so far as lime is present.

B. Slaked lime. On adding three parts of water to well burnt lime, A, the latter combines with some of the water (generating so much heat that much of the water is converted into steam), and crumbles to a dry powder of "slaked lime," containing over 25 per cent. of water. A more active form of slaked lime may be obtained by slaking three parts lime with nine parts water, in which you have previously dissolved one part common salt (thus really forming soda lye).

C. Gas-Lime consists of slaked lime which has absorbed much sulphur. It should be spread out to the air for some time before use (until it loses its color), that the poisonous calcium sulphide may be converted into land plaster.

D. Air-slaked lime produced by exposing A to air, and called "Agricultural Lime," results from the absorption of water and carbonic acid from air. One hundred pounds of it contains 10 pounds water and 25 pounds carbonic acid. If B and C belong exposed to the air they are mainly converted into this form.

E. Ground limestone has been recently highly recommended by some, but I am not yet prepared to express an opinion of its peculiar advantages.

F. Marl is of value according to the extent that it contains pure shell (greensand marl is of more value by reason of the potash in it), but it is usually not profitable to transport it any considerable distance. It is mainly composed of small shells which are so soft that they are readily broken to pieces under cultivation and exposure to the weather.

G. Tufa is a sponge-like deposit of limestone, which is occasionally found by streams of limestone water, having about the same composition and value as first-class marl.

ACTION OF "LIME."

1st. It may be employed to neutralize acid in a *sour soil* (such as may result from the presence of much pyrites), and by this action it will be converted into land plaster.

2d. It may be used to destroy acids produced by *wood rotting* in damp spots, filled with vegetable matter.

For both 1st and 2d use:

Forms A, B and D act most rapidly.

E, F and G answer well.

C is not suited and might do harm.

3d. Organic matter, such as small plants or roots may be destroyed by the use of "lime," and when thus decomposed, their ash matter is so much food set free for future growth. Hence the special advantages of liming newly cleared land.

In this use:

A, B and C act most rapidly and may kill growing plants.

D acts less rapidly, and will not kill (most) growing plants.

E, F and G act very little at all.

4th. Minerals in the soil, which contain plant food in them, and which weather very slowly, may be decomposed by lime. Just as in the furnace, lime is used to form a fusible slag with silica and set free the iron, so here at a far lower temperature, but with greatly prolonged action, the lime forms a soluble compound with the silica, of silicates, and sets their other constituents free for the roots of plants. If, therefore, a soil has in it silicates containing potash, soda, magnesia, etc., when such are acted upon by lime, all these may be set free in a few years for plant food, whereas without the lime, they may not have decomposed in a century.

In this use:

A, B and D act best.

C is less effective.

E, F and G act far more slowly, or must be applied in much larger quantities.

5th. Since "lime" is always used in amounts so large (compared with other fertilizers), besides the above mechanical action we may have also a very important mechanical effect produced: when used on stiff clay soils it diminishes their tenacity, and so lightens them, making them more mellow. In this use the different forms act as in the 4th use (see above.)

A very small fraction of the lime put on a soil is ever removed from it by plants, so we might expect its action to continue indefinitely, but it is slowly washed down into the soil, and hence, after ten or fifteen years (according to the fineness of the soil), another application of lime may be needed.

F. P. DUNNINGTON.

University of Va.

Do Plants draw their Nitrogen from the Inorganic Kingdom?

(Concluded from our last No.)

Early last June my neighbor, Mr. J. V. Crosby, who is also well known to many of your readers in Kent, invited me over to see his experiments of the previous fall with his wheat. It was divided into three equal portions, and without the least intimation of what was used, he asked me to carefully examine each and see whether I could note any difference. It was not hard to decide that plot No. 1 was the best, and on my so stating, he agreed with me, and said that it had been the best from the start. On further examination plot No. 2 was placed as the next best, and plot No. 3 as the poorest, which fully agreed with his own conclusions from a daily observation, commencing from the time the wheat showed itself.

Now, to use his own words, No. 1 is the plain unammoniated dissolved S. C. phosphate. No. 2, a mixture of equal parts of the above with what was used on No. 3. No. 3 was a highly ammoniated phosphate, costing nearly double the price of No. 1. And thousands of tons of just this article are being made in Baltimore and used in all parts of the country with much success; yet it would be folly to suppose that it would act as a panacea for all lands.

In its application many things are to be considered, and the first one is to know whether your land needs phosphoric acid. If so, this is a good article to apply without contaminating it with organic matter for the

sake of some little hidden nitrogen it may contain, which of itself is of doubtful use.

The misfortune is with many that too much is expected from the fertilizer, and hence not enough labor spent in securing a proper condition of the land so that the fertilizer could have fair play. I have often known the best of it utterly fall from this fault. Scratching the ground or lack of proper drainage will prove fatal to anything; and often from this, or equally neglectful cause, the dealer of fertilizers comes in for abuse for selling a worthless article, when the identical article proves a great success within cannon-shot of the failure. I have seen instances of this the past season. If farmers would be more particular in purchasing their plant-food, and from those who are known as honest, fair dealers, and treat their lands as if putting them into the best of condition was to insure the crop, I am sure there would not be such loud complaints of worthless fertilizers.

Again, if they would experiment and find out what their land is suffering for, and apply it in proper quantity, they would never have cause to cry fraud, which gives an excuse for not paying a just bill. That great frauds have been played on many I have not a shadow of a doubt; indeed, have the positive evidence; but the business of furnishing fertilizers is largely in the hands of reliable, honest men, who have a reputation to sustain and who would not intentionally sell a worthless article. Again, there are others who care little about everything else so they can add enough of organic matter to it to give three per cent. nitrogen; and to obtain this the reader who is familiar with the small amount of nitrogen in all organic matter will appreciate the quantity necessary to give the above per centage in the fertilizer, and this organic matter (except for the nitrogen) being perfectly worthless, excludes something of far more value and costing less, such as phosphates, potash, salt, etc.

Passing a large shoe factory a few days ago, and seeing a huge pile of bags containing scraps of sole leather, morocco, sheep skins, etc., I inquired what they were doing with it, and was told they sold it to fertilizing men and got seven dollars a ton for it, and such material is sold to farmers to make wheat, corn, cotton, etc. If they would haul it on my land and spread it free I would not accept it. Yet many pay thirty to forty dollars a ton for mixtures that have a large share of this or its equivalent in some other form, to comply with the law of some States, placing the value of everything from the stand point of nitrogen, which is one of the most negative, uncertain, unfixed elements known in nature. Well may the old name be maintained which has been given to all salts, "Volatile," meaning, I suppose, to fly.

All combinations of a nitrogenous compound (found so largely in the animal kingdom) have but a feeble sustaining power in the presence of heat, air or water, hence the rapid putrefaction of all matters of a quaternary nature. The carbon, hydrogen and oxygen have not the power to hold that restless, uncertain, hermit nitrogen, which with all its old association with oxygen in the air refuses all close alliance, and merely keeps it company in the form of a mechanical mixture.

From this peculiar negative condition of nitrogen, and its tendency to fly off to its old home, it is easily seen what injustice may be done to manufacturer and consumer by having it as the standard of value. I have before me the report of a Northern experiment station, in which nitrogen is placed as the standard of value all the way from seventeen cents to twenty-six cents a pound, depending upon the material furnishing it—nitrogen from flesh having one value; from bone, another; blood, another; and from nitrates still another. Upon what scientific principle this estimate is made I am unable to imagine, being taught that nitrogen is an elementary

body presenting the same condition the world over.

In conclusion I will say, with all respect to the eminent chemist at the head of the institution, I have no confidence that such a valuation can be of any advantage to the farmer in selecting his plant-food, and thousands have found it to their sorrow; and I am glad to know that steamboats and other means of transportation are able to handle and deliver fertilizers without the old offensive smell of escaping nitrogen from putrefying animal matter, such material not being found in much of the fertilizers sold in Baltimore. I will repeat what Mr. John Evans, of Queen Anne's County, told me some time ago; and where he is known his word is of some account, and his wheat crop is measured by the thousands of bushels. He said that by the use of South Carolina dissolved rock and proper tillage, he thought one could pay for any of the worn-out lands in Queen Anne's with the profit on two crops of wheat, and this remark springs from a fair trial of five years of an unammoniated phosphate. The well-known success of Mr. Evans must give some weight to his opinion. A. P. E. Kent County, Md.

Level Culture for Light Soils.

Messrs. Editors American Farmer:

My experience in the cultivation of the many different crops incidental to the "truck farm," has been confined almost entirely to soils of a light nature; sand alternating with heavy sandy loam, and of such only do I feel competent to speak.

The advocates of deep and shallow cultivation, each have their followers, who are about equally divided upon the question; as they should be. All depends upon the nature of the soil, whether heavy or light. I propose to speak of the soil peculiar to that part of our county known as "Piney Woods," the exact location of which is still a mystery to the geographical world. While no one seems willing to own his residence as being within its precincts, we do not see why they should not glory in the name, as there is found within its borders a soil as warm, kindly, and easily cultivated as can be found anywhere; a soil, which, if kept stirred, will mature a crop in the driest summers. The past summer was one of the driest ever known, and the corn crop especially a light one, yet I can point out fields in this section where full crops of corn were made by simply cultivating often and shallow.

The custom most in vogue here, is to plant as early as the season will permit upon fresh plowed land, broken no deeper than the surface soil extends, which averages six or eight inches, sometimes less. Experience proves that it is unwise to turn up the subsoil along with the surface soil, as it seems to poison it, and its effects can readily be seen upon the crop that follows. We believe the better plan is to let the soil, naturally thin, deepen itself, by the accumulation of vegetable mould and the action of the atmosphere, aided by thorough cultivation.

We aim to cultivate corn (and in fact everything we grow) deep, as long as the plants are young; but as soon as the ground becomes filled with roots, which are in danger of being torn and mangled by the plow, we confine all after cultivation to frequent and shallow stirring of the soil, being careful at the same time to leave the ground level. The moisture of the soil is thereby much more readily retained than by hilling or ridging, which leaves the soil exposed to the drying winds and scorching suns of summer.

Of course we would not advise such a system of cultivation for all soils, especially cold and wet ones, but for light sandy and loamy soils we have found that such cultivation will best ensure a crop, taken one season with another. Especially is this true of hot and dry summers, which are almost invariably the rule of late years. Our soil responds

most readily to frequent and thorough cultivation, aided by the application of manure or fertilizers, and is often a source of wonder to those unacquainted with its nature. Good crops, however, are grown upon seemingly barren land; the secret of this being mostly in the fact that light porous soils if kept stirred attract and hold moisture more readily than stiff or clay soils, the moisture caused by evaporation from beneath is caught and held, as well as the dews of night; and it is also a well-known fact, that the hotter the air becomes the more readily it parts with its moisture which is attracted by dry earth. To judge more correctly of the attractive properties of dry loose earth we have but to go to a freshly plowed field early in the morning, during a drouth, and notice the dampness of the ground, caused by evaporation from beneath and attraction from above. We hope to be able to still further extend our views upon this subject in the near future. R. S. C.

Anne Arundel County, Md.

Woodlawn, Va., Farmers' Club.

MEETING AT CAMERON.

Messrs. Editors American Farmer:

Rarely since the organization of the Woodlawn Farmers' Club of Fairfax county, Va., have its members had so enjoyable a meeting as the last. The day was one of early winter's finest displaying. Nearly every family of our Northern settlement over the broad domains of the illustrious "Washington" was well represented, and numerous friends from the neighboring cities came to join our company—so that the assembly was unusually large. But the house of our host, R. F. Roberts, President of the Association, is spacious, and there was ample room, a fraternal welcome, and a bounteous hospitality for every guest.

Of the transactions of the day I send you brief mention, that the readers of your journal may note, that the agricultural interests of "Old Fairfax," at least those of this section of the county, are not so much neglected as people abroad imagine. The subjects discussed took a wide range, but each one of them had a practical bearing on either progressive agriculture or general community welfare, such as the management of the dairy, the feeding of ensilage, and the use of cotton-seed meal as a part of each feeding ration, the subdivision of large, poor farms into areas small enough to be highly fertilized and thoroughly cultivated, the making of wagon roads by machinery, and the urgent necessity of some legal changes by which the inhabitants of Mount Vernon magisterial district may be empowered to regulate their own local affairs, etc.

The "critical report" read before the meeting gave a very satisfactory and creditable showing of the condition, general arrangements and extensive business of our friend Roberts. His farm of one hundred and thirty acres, just outlying the suburbs of Alexandria, is chiefly devoted to milk dairying. His sales of milk during the past year at old contract prices in Washington city, amounting to \$6,000. The condition of his herd, numbering sixty head of cows, gives unmistakable evidence that unstinting care and attention, without which there can be no profit from this important agricultural industry, have been bestowed not only in the breeding, but also in the sheltering, in the provisions for watering and for all other necessary comforts of the animals. Hard by the ample barns where these cows are quartered, fortunately for them as well as for the deserving proprietor, is a busy grist mill whence come abundant supplies of corn meal and wheat bran, and close to the stables is a "silo" stored with near two hundred tons of well-preserved ensilage. The feeding of this new article of cattle food here first experimented with in all this region, and for which

praiseworthy enterprise the thanks of all his brother farmers are due, is considered by him after two seasons of continuous trial a complete success. This crop of ensilage was cut from ten acres, near twenty tons to the acre, and the entire cost of gathering it in the field, cutting it into short lengths by steam cutter, and properly housing it in the silo was \$110. When this forage is taken from the silo now, it is in good condition, free from mould, with a slightly vinous odor, and is relished by the cattle, and the milk is of unexceptionable quality. With it are fed corn meal, wheat bran, and clover hay, alternating.

Among other noticeable things on this Virginia farm, so well cultivated by its former New Jersey farmer, are seventeen well-kept horses, and a sty of fat hogs. Besides sufficient pasturage, and an adequate supply of ensilage, and more than enough hay by eight tons for all his dairy, five hundred and sixty bushels of wheat have been grown.

Our friend Roberts manures without stint, as well as feeds without stint, believing that the skinning process practiced by so many farmers in the South will sooner or later impoverish both the farm and its cultivator. He is no visionary, utopian farmer, but a plain practical one, ever watchful of all the details of his vocation, keeping himself well advised of all important information on rural affairs, and advantageously applying and putting it into practice for his own good and the good of his neighbors. A large portion of his productive pasture lands were found by him only a few years ago, either briary or frog-pond wastes, which but for his renovating enterprise and his laudable ambition to succeed in spite of many adverse prophecies, might still be remaining in the same condition to mar the other fair features of this desirable homestead. The class of men who are forever croaking of the impossibility of profitable farming in Virginia, will find in the judicious appointments and careful surroundings of the homestead we have been briefly describing, no sign or evidence to confirm them in their unfavorable opinions.

It was not till long after lamp-light that the interesting proceedings of the Club were finished and the hundred guests had partaken of the bountiful supper always on like occasions provided. Then in the comfortable apartments of "ye ancient farm house," as many a time before at other cheerful homesteads in our "Mt. Vernon settlement," the happy company of neighbors and friends, "so well acquainted," disposed themselves into groups, and pleasantly chatted over neighborhood affairs and events, the recent and the prospective weddings, the last lecture of the Literary Society, the coming Christmas festivities and presents, the closing old and the approaching new year, or listened to charming music till a late hour, when they reluctantly said good-bye to the hospitable host and hostess, and the other kind members of the family; and then each one journeying homeward in the full winter moon-light, better and wiser we trust for another monthly social reunion, carried very many pleasant impressions of "Club day at Cameron."

W. H. SNOWDEN.

How to Raise Canning Produce Without Impoverishing Farms.

(Concluded from last No.)

Joseph A. Ball could not see why fertility can not be kept up for canning as for anything else. The farms in the lower part of the county have been kept up better, since they have been raising canning crops, than when they raised wheat and other crops. They have made money canning, while if their lands had laid in grass they would have grown poorer every year. If you can sell tomatoes at the average price of the last few years it will pay better than our usual crops, even if the land does deteriorate a little. If he had only a small place he would be willing to risk it a 1 in tomatoes. A tomato field

will not wash more than a corn field. His plan would be to farm the land four or five years, using commercial fertilizers, and then let it rest. The fertility can be kept up with wheat straw, barn yard manure, &c., if you can get them, but the most economical plan is to let the land rest.

Thomas A. Hays thought Mr. Bradford's ideas very good. He did not believe you can keep up fertility by plowing constantly and applying commercial fertilizers.

S. C. Andrews said he had had four years experience in the canning business, and knew that wheat will grow thrifflily after tomatoes. Tomatoes can be grown year after year in the same field, and each crop will be better than the preceding one, provided bone and phosphate are applied every year. Wheat is always good after tomatoes. Mr. Charles James, with whom he had lived, raised on an average 23 bushels of wheat to the acre, on tomato ground. 250 bushels of tomatoes is an average yield. That would make 150 cases, or about 14 cans to a bushel. If it can be done it would be better to sow tomato ground in wheat and clover, even if you plow it the next year. Sod ground is best for tomatoes, as they will stand the draught better.

Thomas Leachery said that keeping up the fertility of land with artificial manures depends very much on the land itself. The land around Aberdeen had been improved during the last 15 years by this means, but if our Deer Creek land on which from 15 to 20 barrels of corn can be raised to the acre, were plowed every year it would go back. It might be kept up with bone, but it would cost more than the crops would justify.

John Moores thought land might be kept up while canning. The canner, he thought, should also be an extensive feeder of stock. He would then have plenty of barnyard manure, which would certainly keep any level land fertile. He would not advise canning on hilly land. Corn meal at \$20 or \$25 a ton, or bran at one cent a pound, would be the cheapest fertilizer to buy. Feed it to stock and you would feed it to profit. You would not only get fertilizer, in the shape of barnyard manure, but a profit on your stock besides. Canning houses might be turned into houses for wintering stock and the feed could be advantageously cooked. He did not think tomatoes exhausted the fertility of ground, nor did he think there was much difference between corn and tomatoes, in their exhausting effects upon ground. He was not satisfied that bought fertilizers would keep up fertility for canning on all lands.

Johns H. Janney thought fertility could be kept up while canning. Our gardens are plowed up every year, and they grow very rich. He thought it might be advantageous to sow rye in the corn field at the last working and plow it under in March or April. With vegetable matter and bone he was satisfied fertility can be kept up, particularly while raising sugar corn, which is not allowed to ripen on the land. If canners have a farm of any considerable size they might feed cattle extensively. If they raise sugar corn they should build a silo, cut up the fodder, and feed with a little meal. One hundred acres of sugar corn should feed 100 steers. After three or four crops he would advise sowing clover, allowing it to stand two years.

The President, Geo. E. Silver, said he believed it almost impossible to keep up the fertility of hilly land under constant plowing. Such land, after 2 or 3 years, would become very light, and much of the soil would be washed away. On level land the fertility might be kept up for a number of years, by artificial manures, especially bone. He did not regard corn, tomatoes or peas any harder on land than our present crops, and he did not see why sugar corn should be as hard on it as field or horse corn, as it is called. There is no reason why fertility should not be kept up if we follow our usual rotation. Say plow two or three years, then throw the land

in grass and let it lay. He did not believe we could put enough on hills to make up for the constant loss by washing, but level lands may be kept up by bone and phosphate. The question is will canning justify this expensive outlay.

Jas. H. Ball said that the question resolved itself into this: If we keep up our system of farming and raise tomatoes, corn or peas, shall we not have to devote our usual corn ground to raise these things and buy corn for our stock.

The club then adjourned to meet at the farm of William F. Hays, on the 7th of next January.

Corn Fodder and Mangel Wurzel.

Messrs. Editors American Farmer:

In your issue of this date you have an article from J. A. C. on "Corn Fodder as Green Food." The result was satisfactory to him and is to me, but if he will follow my plan I think it will be still more satisfactory to him. On the 27th of last April I broke up and thoroughly pulverized with roller and wheel-harrow one and a-half acres of ground that had been in Mangel Wurzel the previous season. Then with the Bickford & Huffman drill, all the tubes open, set with wheel No. 6, and gear lever in notch No. 6, I drilled in about eighteen pecks of corn and two bags of dissolved bone. I began to cut the fodder about the 15th of July, and from that time until October 1, I fed, giving them all they wanted, seven horses, five cows, eight heifers and calves, with an occasional feed to thirty-four sheep, from that patch alone, cutting nearly two cartloads per day. With my pasture completely exhausted, and but little hay left over, I would have been in a pretty bad fix without my green fodder corn.

I follow this practice every year, using stable manure, about forty cartloads to the acre, whenever I have it, instead of the bone, giving of course a much heavier yield. The large quantity drilled in gives a set thick enough to prevent a growth of more than four or five feet, keeping the stalks green and slim and full of juice, the stock eating them up as clean as the blades.

I have now about eight hundred bushels of Mangel Wurzel raised on one and a-half acres. Same land a few years ago yielded about one thousand four hundred bushels, having had plenty of rain. I give a feed every night to horned stock and sheep, using about six bushels. I expect the supply to last until latter part of April, when our pasture will be ready. The stock are very fond of it, and all show the benefit of its use, particularly the cows in the increased quantity and richness of their milk. The cost all told is not over three cents per bushel, and I think are preferable in all respects to green fodder kept in silos. Yours truly, F. B. S.

Rhode River, A. A. Co., Md. Jan. 1, '82.

How to Save Seed.

In other words, "how to prevent crops from deteriorating," is a most important question lying at the foundation of all agricultural and horticultural prosperity. Nature's law is "multiply and replenish," no matter as to the particular quality, but everything as to quantity. "The survival of the fittest" governs the result. But Nature's operations are too slow for our short lives, so the business of the cultivator is to aid mother Nature, and thus reach the best results in the shortest periods.

It is a fact too well known that, ordinarily, crops deteriorate, and this, for one reason, because the seed becomes weakened. The story of "Dreer's Improved Lima Beans" will illustrate the idea and explain the whole *modus operandi* of saving of seed.

Some years ago a gardener asked our Mr. Saunders how he could improve the Lima bean. He was told to find, if possible, a pod having at least four beans; the next season to plant the one, the largest and best of

these; the next season to select as before one bean, the one which not only seemed to the eye the largest and best, but the one that could weigh the most, and then to pursue this method for several years. The result we all know is a really great improvement of that delicious vegetable.

One has asked why are our melons so inferior nowadays? The answer is that pains are not taken in saving the seed. There is a variety of musk-melon sold by one of our seedsmen, the "Hunter" melon, which illustrates this point. A Mr. Hunter received, some years since from abroad, seed of a very choice melon. These were planted, and the seed of only the very best were saved. In this manner has the seed been selected, and now after more than twenty years this variety commands the highest price in our markets, and the seed sells for \$3.00 per pound, while other varieties can be had for fifty cents and are dear at that.

I have seen a stalk of corn bearing ten ears. Of course, this nine-fold increase came from selecting the seed, at first, of a stalk that bore two good ears, then there would be a few with three ears, and so on until the grand result was reached. I know that many farmers say that if they can get one good ear on each stalk they will be satisfied. Well, such are not very particular, and will buy corn from a neighbor's crib and plant the best of this. Of course, they get only an ordinary crop. Is not this the reason that growing Indian corn has become such a poor and unpaying business? For my part, I will let the idiots grow this corn, and I will purchase it in the fall for less than two dollars per barrel.

We have many new varieties of wheat, but if I were growing it I would screen out from one hundred bushels say one bushel of the largest and plumpest berries, and sowing this, would, the next season, do likewise, and would ultimately get the very best seed wheat. There is one other idea involved in this matter to which we all need to take heed. It is the seed that impoverishes the soil! The more seed the greater the drain, and therefore the greater need of more fertilizing.

Well, brother farmers, let us be wide awake, intelligent and teachable, and thus make our business the noblest and grandest in the world. G. F. NEEDHAM.

Washington, D. C., 1882.

Agriculture in Europe.

[From our Correspondent in France.]

STOCK RAISING.—In the department of the Nièvre, the rearing of stock is the chief feature of agriculture, and the farmers have become immensely rich since half a century; meadows there are not permanent, and the land receives no other manuring than the droppings of the cattle; lime is added largely to stimulate clover, and when after eight years a meadow is broken up, oats are sown on the lea, then three grain crops, the fourth oats along with clover and selected grass seeds; the meadows are never mown, and one head of cattle per acre is the ratio allowed. The stock are duly sent to the beet sugar growers of the North to be fattened. The general rotation in the Nièvre is, eight or ten years grass, then oats, two wheats, and oats as above, but no manure is ever added to the soil; the soil is a sandy clay, and lets readily for 32 to 40 francs per acre.

CROSS BREEDING.—Professor Kühn, of Halle, is occupied with the crossing of the cow with the Yak. There is nothing new to be demonstrated that animals of different species will breed; the evidence exists in the affirmative in the case of the goat and the sheep, of the hare and the rabbit. A cow, the product of a mother crossed by a Yak, was covered by a shorthorn, and in turn produced a calf with all the traits of the Yak at the tail and head. The products of these crossings, however, are not fruitful between

themselves, simply because they are hybrids and not crosses—the male of a hybrid is rarely so. Mules have been successfully crossed by asses and horses, but the same has not been the case with a male mule, although the researches of Balbini invite caution in this respect.

RATIONS OF HORSES.—There was a Gascon once who boasted that he gradually reduced the rations of his mare to a point where the animal lived upon nothing, only at this stage the mare died, which constituted a drawback. Discussions are taking place as to the practicability of diminishing the rations of horses in the cavalry or under the omnibuses by employing maize-cake, beans, &c., in place of costly oats; or feeding the horses more highly and by exacting more work from them, require fewer to feed. Prof. Muntz lays down there is a point in the feeding of horses that cannot be overstepped; that high rations to one horse will not produce a result of work equal to that produced by two moderately fed. In the case of the omnibus horses, the animals exceptionally overworked, though well fed, are ever those first on the sick list.

CHEMICAL CHANGES IN ENSILAGE.—In the preservation of green food, maize, clover, &c., in trenches, a fermentation ensues, of which the seat is the vegetable cell. Carbonic acid, alcohol, and acetic acid are produced at the expense of the immediate principles contained in the forage. Over two per cent. of carbonic acid in the case of maize, and nearly one and a-half per cent. for clover, is given off during fermentation; if a part of the nutritive principles be lost, the remainder are made more utilizable. Also the fatty matters are increased during the fermentation.

INFLUENCE OF CARBONIC ACID ON VEGETATION.—M. Deheynin has repeated de Saussure's and Corewinder's experiments, that of testing the influence of carbonic acid on vegetation. But little of this acid is contained in the atmosphere, 10,000 quarts containing not more than three or four. The Professor placed haricots, colza, and tobacco plants under bell glasses so as to exclude all communication with the external air, then pure carbonic acid, in measured daily quantities, was introduced. The beans and colza showed any excess of acid to be unnecessary, but the tobacco leaves became very plethoric, owing to immense deposit of starch matters in the leaves. The experiment was controlled by kindred plants also placed under bell glasses, but supplied with common air. The tobacco leaves assimilated more carbon than was supplied by the introduced acid—from whence did it come? From the disengaged oxygen, acting on the carbon in the soil contained in the pots, and thus producing additional carbonic acid. F. C.

Paris, Dec., 1881.

A Farm Tool House.



One of the most useful and money-saving buildings that a farmer can place on his premises is a spacious and convenient tool-house. It is generally the case that there is room enough in the various out-buildings to house the farm implements, if it is economized, but it is a corner here and a few feet of farm or shed floor there, sometimes in a cellar and sometimes in a loft, possibly easy of access but probably difficult, and in all such instances it is a space originally intended and really needed for some other pur-

pose. The main reason why so many farmers neglect protecting their implements from the weather when not in use is the lack of convenient and roomy storage. We lay great stress on its being spacious and handy, for if thus, John will always drive the lumber wagon inside to take the hay-rack off, and he will draw in the stone boat with the plow and harrow and cultivator on it, and they will escape the next rain or dew and the consequent coat of rust. A farmer needs a tool-house as much as a horse-barn or wood-house. Our illustration is suggestive. It is adapted to a locality abounding with stone. The walls of the building are made of that material, laid without mortar. The foundation is placed below frost and the earth is banked on the outside to further protect them and throw off the water. The top of the wall is leveled with mortar, and a two-inch plank laid on, to which the rafters are spiked. The latter are braced on the inside by nailing on cross strips. The roof may be made of the cheapest material, which varies with localities. There is one window in the end opposite the door. The doorway should be twelve feet wide to admit a reaper, and if the location is not too much exposed there is little need of doors. The ground is the floor. The walls are about six feet high and the structure should be twenty wide by thirty or forty feet long. Such a building will cost but little where stone are in the way. The farmer can build it and it will save many dollars in twenty years, and many steps each year otherwise taken after mislaid implements.

Live Stock.

The Maryland Improved Live-Stock Breeders Association.

At a meeting held in this city on the 11th instant, called by a committee of gentlemen requested to act for the breeders of improved live-stock generally, an association bearing the above title was formed, a constitution adopted and officers elected. There was a good attendance of breeders of all kinds of improved stock in this State and much interest shown in the proposed organization. The principal objects of the association are as follows:

1. The occasional meeting of breeders for the discussion of difficult problems of breeding and the care of live-stock.
2. The mutual protection of its members against the impositions and dishonest practices of others, by making known all violations of the principles of honest dealing.
3. The attraction to our State of buyers from a distance, who, from the want of proper advertisements, are now ignorant of the advantages for purchasing we are able to offer them.
4. Believing that the latter object, as well as the test of individual progress and success as breeders, can in no way be so well attained as by holding large and successful agricultural exhibitions, it is proposed that it be the province of the association to encourage, co-operate with and assist the organized agricultural societies within the State, and by concerted action secure from transportation companies better and cheaper transportation to and from such exhibitions.

5. The exercise of a moral supervision and control in the selection of judges of awards at such exhibitions, so that judges may be selected with reference to their special fitness, and not because they are "good fellows," and to secure awards based on merit and free from all suspicion of favoritism.

The following officers were elected for the ensuing year: John G. Clarke, president; John E. Phillips, vice-president; T. Alex. Seth, secretary and treasurer; Fred. Von Kapff, corresponding secretary; A. M. Fulford, of Harford; G. S. Watts, of Baltimore; J. F. McMullen, of Frederick; E. B. Emory,

of Queen Anne's, and Frank Brown, of Carroll, board of directors.

It is the purpose of the new association to hold exhibitions; and the impression prevailing in some quarters that it is to be an adjunct to the Maryland State Society is without foundation and needs correction. The constitution, as adopted, contains a provision that all gentlemen who received invitations to the meeting at which the organization was perfected, may still become members by signing their names, or authorizing the secretary to sign them to that instrument before March 1st, 1892. After that date all applications will have to be in writing and be voted on. We would urge upon all the breeders throughout the State who were asked to take part in the founding of the association to join at once, that they may be able to attend the first quarterly meeting, which will be held in Baltimore on February 8th, when an attractive programme for discussion will be arranged. The benefits, which in other States have been found to arise from similar societies, warrant a belief that in ours this will be a most useful one. The constitution will be found at the office of the secretary, Mr. Seth, No. 28 St. Paul street, Baltimore.

At a meeting of the newly elected board of directors, a committee was appointed to secure the co operation of the Merchants and Manufacturers' Association, Oriole Society, Corn and Flour Exchange and Board of Trade, in asking the American Agricultural Society to send a committee here at an early day to consider the feasibility of its holding its first exhibition here next October.

Recent Sales of Jerseys.

Since our last our Baltimore county breeders have been making sales with a spirit and rivalry only equalled by their recent excitement in purchasing. We have to record first the sale for \$900 of the fine young bull Saturnalia by Mr. Von Kapff to John W. Garrett, Esq. Saturnalia won second prize at the Baltimore County Fair of 1891, and at the State Fair, a few months later, won first, beating the bull that beat him at the County Fair. He is a fine grey with extremely rich coloring of hide and horn, and is worthy to head any of our choice herds.

Mr. John E. Phillips sold to Messrs. A. C. Jennings & Co., of Ohio, twenty-four animals—all females—five calves, ten heifers (yearlings), and nine cows, on private terms; among the lot are said to be some very fine animals, but Mr. Phillips retains enough to maintain his high position among our county breeders. Mr. John Ridgely, of H. has sold the same firm thirteen heifers.

Mr. Charles E. Hand has sold his Alpha bull Mercurio, 4783, for \$900, to Samuel Ritchie, Esq., of Plattsburg, Mo., and to Geo. R. Dykeman, of Shippensburg, Pa., cow Belle of Poquonnock, 1874, and to Messrs. A. C. Jennings & Co. yearling bull out of Poquonnock, and a high-grade heifer.

The presence of such buyers as Messrs. Jennings & Co., Dykeman and Ritchie, from Pennsylvania, Ohio and Missouri, among our herds argues that our stock is getting a national reputation, and we may look forward to good markets and high prices. We have had good Jerseys among us for many years, but for the want of judicious advertising have lacked a market.

American Horses.

A very interesting paper appears in the *London Field*, detailing the history of the best horses in the country, and dates the beginning of the success of the American race horses back to the importation from England of Sir Chas. Bunberry's "Diomed," the winner of the first Derby, who was bought by a Virginia farmer for fifty sovereigns when the horse was more than twenty years old. "Diomed" lived for rather more than ten years after his introduction into Virginia, and from the loins of this distinguished horse

have sprung nearly all the best thoroughbreds of Virginia and Kentucky. "Diomed," says a contemporary, "has been aptly called the American Godolphin, and, like his prototype, has stamped the impress of his blood upon nearly every racehorse that has figured for the past three quarters of a century in America. From him descended Sir Archy, Timoleon, Ball's Florizel, Boston, and finally Lexington, in whom his blood seems to have culminated, and reached the very acme of its fame."

The *Field* adds that the importation of "Diomed" and his great success in siring the best productions for the turf that has been produced in this country, led to other importations, so that there is now no State in the Union where an English blood sire is not accessible to breeders; and we believe the conditions of climate, water, and soil to be so favorable for developing horses of the finest type in many parts of the boundless continent of North America, that it is probable Foxhall and Iroquois are but the *avant-couriers* of many formidable steeds which will find their way to these islands.

The *Field*, however, predicts that "the future heroes of the turf, notwithstanding New Jersey was the birth place of Iroquois, will be born at the South, from the fact Mr. J. R. Keene, the owner of Foxhall, is alleged to have recently purchased a property in the Valley of Virginia, called the Meems Farm, which lies in a district already identified with many famous racehorses—a district, in short, which stands in the same position with regard to the American Turf, that Richmond in Yorkshire and the circumjacent country occupy with regard to our own. The only disadvantage under which young stock labor in the New World is that American oats is far inferior to those of England, Scotland and Ireland. It would, in our opinion, pay the owners of thoroughbred foals and yearlings in the United States to import their oats from this side, just as English and Irish potatoes are now being sold at a profit in New York. Be this, however, as it may, nothing is more certain, in conclusion, than that, encouraged by the great successes of Iroquois and Foxhall, our American brethren will now address themselves more than ever to raising thoroughbred stock. They have the advantage in their favor that roasting is almost unknown among them; and the ordinary American half-bred horse is the best of his kind in the world; and, finally, that their vast country offers so many different kinds of air, temperature, soil and water to choose from, that the best equine blood of England will, perhaps, enjoy such chances of amelioration and improvement in the western hemisphere, as shortly to transfer the head-centre of horseracing from the island home which was its cradle to a more congenial and more favorable continent beyond the Atlantic."

Live Stock Items.

SHEEP.—The man who makes the business pay is the man who carefully selects his breeding ewes, annually culls out the old and inferior stock to fatten for market, and constantly keeps at the head of his flock a thoroughbred male; if he cannot afford to start with purely bred ewes. No other kind of stock-raising pays so liberally at present as sheep-growing if properly attended to. To be a successful flockmaster you must keep your flock young, feed well, and breed with judgment.

EXCLUSIVE CORN FEEDING.—An American swine-breeder says: "I know from experience that exclusive corn-feeding will produce inflammation of the bowels and cause pigs to die. I lost several at one time before I discovered the cause. After they were dead they turned black under their bellies, which led me to surmise the seat of the disease. Some of those living in the same lot, upon examination, were found to

be quite red beneath the bowels, and the surface under their bellies was found to be hot, which plainly indicated an inflamed condition of the stomach and bowels. These pigs were saved by a complete change of diet to wheat middlings and vegetables. The pigs were about three months old."

CHANGING FOOD FOR HOGS.—The following experiment was made by Lehmann, in Weiditz. He fed a hog, one year and nine months old, for a long time with nothing but rye bran, and commenced to give whole grain after the animal's digestive organs had become accustomed to the exclusive bran diet. He found that of rye 49 per cent., of barley 54.8 per cent., and of oats 50.6, and of peas 4 per cent., remained undigested. Therefore if animals once accustomed to artificially prepared food have to eat whole grain, the waste will be much larger than it is if the same have received nothing else since they were weaned. Consequently a change from prepared food to whole grain is, as a rule, not advisable, while a change the other way will do better.

WOOL UNDER THE MICROSCOPE.—The microscope will show you, if not the atoms or molecules, the magnified fibres, so that you may see how mysteriously they are constructed, as if minute leaves were growing out of a central stem so thickly that the lower overlap those above; or, if you were to suspend the fibre from the root, the leaves or scales would appear imbricated, like the shingles upon the roof of a house. In fine wools the number of these leaves or scales in an inch exceeds that in coarse wools; in fine Saxon wool there are 2,720; in Merino, 2,400; in Southdown, 2,000; and in Leicester, 1,850 scales to an inch. The filaments of fine wool are also more or less spiral, or twisted. Upon these scales depend the felting properties of wool.

FEEDING STRAW.—Says an authority: "A dry cow fed on straw with two quarts of corn meal daily will do as well as if fed on hay alone. In this locality the price of corn meal does not much exceed, per ton, the price of hay. The manure made from such feeding is, I think, fully equal in value to that made from hay. When bran is fed double the quantity should be given—four quarts instead of the two of corn meal—and the manure, in my judgment, would be equally valuable. A steer could be well wintered on two to four quarts of meal per day, according to his size, using straw as supplementary food, and gain all the time. Two quarts of meal would weigh about two pounds, which at \$20 a ton for the meal would make a cost of two cents a day, or \$3 for five months. These figures would bear doubling in the price of corn meal, and then make it profitable to winter stock with corn meal and straw, and decidedly so against the practice of throwing the straw away."

Linseed Meal compared With Corn.

An inquirer having asked the value of linseed meal for fattening or dairy purposes as compared with corn meal, the *National Live Stock Journal* replies as follows:

In comparing the value of one food with another, it must not be understood that it is proper to feed any one food alone, or that a complete diet can be made from a single food. The value of each food is estimated by the weight of its separate digestible elements. The Germans have fixed upon a standard of value, based upon their experiments. They estimate the digestible albuminoids and fat contained in any food, as worth 44 cents per pound, and carbo-hydrates (starch, gum, sugar, etc.) at 9-10 of a cent per pound. Let us compare new process linseed meal with corn meal by this standard. Linseed meal has, of digestible albuminoids, 27.8 per cent.; of fat, 2.1 per cent.; of carbo-hydrates, 33.9 per cent. or pounds in 100 pounds, and is therefore worth \$1.60 per 100 pounds. Corn

meal has 8.4 per cent of albuminoids; 48 per cent. of fat, and 60.6 per cent. of digestible carbo-hydrates, worth \$1.11 cents per 100 pounds.

It must be understood that these values are not absolute, but only relative. The Germans find these prices according to their market. Corn meal has too much starch, etc., and too little albuminoids; whilst new-process linseed meal has too large a proportion of albuminoids, and too small a proportion of carbo-hydrates, to make a well balanced ration to feed alone. It will readily be seen that they should be fed together. If for fattening, feed one of linseed meal and two of corn meal. This makes a well balanced ration—it has a nutritive ratio of 1:4.1—that is, 1 of albuminoids to 4.1 of carbo-hydrates. Suppose the coarse fodder ("roughness") is corn stalks and straw, then this linseed meal will have a greater value, than that represented, because this fodder is very deficient in muscle-forming matter, and comparatively rich in carbo-hydrates, and this linseed meal will make a well balanced ration, even with corn stalks and straw. Large cattle will fatten on 6 pounds of linseed meal and 10 pounds corn meal, with dry corn stalks for fodder.

Linseed meal is admirably adapted to feeding for dairy purposes, as the caseine of the milk requires a food rich in albuminoids, and also giving a good flavor. Dairymen do not always give a well balanced food, and the cow becomes very poor while milking, because the food does not contain sufficient nitrogen to form the milk, and she draws on her own system for the deficiency. Four pounds of new process linseed meal per day will keep a cow in a strong, healthy condition, and increase the yield of milk; but the balance of the grain food required should be of corn meal, or shorts, or ground oats—a variety is required to produce the best milk.

Errors in the Management of Poultry.

The too common practice among farmers of disposing of the best of their poultry flock because it will bring a higher price is very unwise, to say the least. The method need not be too long followed to cause the flock to become a worthless, unprofitable one, while if the exact opposite is observed—that of keeping the finest specimens—the flock and stock are constantly being improved. This is the key to success that makes so many successful with poultry rearing. If you have an extra good male bird, if any good judge of poultry offer you an extra price for him, thank him, but keep your bird, and say to yourself if the bird is worth that much to him it is worth it to me. The errors in the management might, perhaps, more truthfully be called neglect. Success will not attend efforts in the poultry business unless care, pains and attention is devoted to them. I do not know when I have seen an article that comes so near to what is really essential. Avoid the errors mentioned in the article given below, to the proper way of keeping poultry:

Because the largest and finest specimens of young fowls are the most desirable for cooking they are killed off, and the small, inferior ones and the old hens are saved to lay eggs and raise chickens. The repetition of this plan from year to year is the most effectual one on earth to degenerate a flock until it is unprofitable for eggs, the old hens becoming worthless and diseased, and the young ones will be dwarfed and feeble.

It seldom pays to keep hens the third year. With age they become great eaters, fatten, stop laying, get diseased and die. They may not entirely stop laying, but are not profitable layers.

To improve the flock, pursue the opposite course from the one mentioned. Select for the market all the old fowls and the inferior specimens of young ones. Especially avoid the great error of in-and-in breeding.

Change the cockerels every year, either by purchasing or exchanging with a neighbor. In doing so never select an inferior specimen. Pure-bred fowls, being more potent, are the most desirable. G. O. BROWN.

Farmers and Poultry.

Farmers have plenty of room and land to spare on which fowls may be kept to advantage. Cheap houses can be built on their premises to shelter a hundred or two birds that will give them fresh eggs in abundance (to use in the household or sell for cash) in the right season. There is very little labor to be performed in the proper care of a few scores of nice fowls during the breeding season. And a large—very large—percentage upon the cost and keeping, all told, is the natural and certain return there may be realized to any farmer anywhere, on a small or large scale, where this business is conducted as it should be. Why, then, should not our farmers avail themselves of this plainly remunerative adjunct upon their premises?

There is more money in good poultry-raising (considering its cost), by one half, to be had annually than can be realized from the pigs or the sheep on a farm. And yet the latter are fed and housed and bred everywhere, to the entire neglect, almost, of fowl stock. Our farmers will do well to look into the merits of this thing. Good fowls of any of the improved breeds may now be had at a reasonable price. And we sincerely recommend this matter to the careful consideration of those who have the facilities at hand to rear good poultry at a remunerative rate, but who have neglected this well-paying branch of rural economy.—*Home Circle*.

The Apiary.

Bee Keeping Suitable Employment for Women.

The following paper was read before the Bee-Keepers' Convention held recently at Lexington, Ky., by Mrs. L. Harrison:

Bee-keeping, although a laborious employment, demands no great outlay of strength, at one time. It embraces the performance of many little items, which require skill and gentleness, more than muscle. The hand of woman from nature, habit and education, has acquired an ease of motion, which is agreeable to the sensibilities of bees, and her breath is seldom obnoxious to their olfactory-nerve, by reason of tobacco or beer.

Women have demonstrated that the making of hives and surplus boxes is no objection, as they have purchased them in the flat, nailed and painted them. The hiving of swarms is neither more difficult nor dangerous than the washing of windows or milking. The right time to extract honey, or to put on, or take off surplus boxes, requires no more tact or skill to determine, than the proper fermentation of bread, or the right temperature of the oven required for baking. She is in her allotted sphere while raising queens and nursing weak colonies, or caring for the honey when off the hive.

The most powerful argument in view of the suitability of bee-keeping for women is this: That it is something she can do at home, and not interfere with her domestic duties. Many women of small means have young children depending upon their exertions for support, and remunerative work to be performed at home, brings very little in the market of to day. For instance, the making of overalls at five cents a pair, and shirts at fifty cents per dozen. She is compelled to accept less pay than men for the same service performed. We had a friend chosen as principal of a school on account of her efficiency, but was compelled to accept lower wages than her predecessor, who was a man, and dismissed for his incompetency. But we have never found a dealer unscrupulous enough to offer less for a pound of honey, because it was produced by a woman.

Horticulture.

Failure of the Pryor's Red Apple.

Messrs. Editors American Farmer:

This apple, in the middle sections of Virginia, in past times was considered one of the very best, but for the last thirty or forty years it has become worthless in consequence of *cluster cups*, an insect or parasite that begins to depredate on the leaves when they are about half grown, causing them to become covered with brown embossed spots, and to dry up and fall off prematurely. *Sap-suckers* are also troublesome with this as with other sweet-sap apple trees—they will puncture and injure the bark from the ground up to and among the large limbs.

Wherever this splendid fruit can be grown without this difficulty, we would advise its culture to the exclusion of many of the newer sorts now introduced in our orchards. The fruit is generally large, or very large, rather dry, but a very pleasant, almost sweet sub-acid; tender and mellow up to March or April, and is a favorite eating apple with almost everybody. We have written in commendation of this apple heretofore, but, finding that the trees are still ordered to sections where they are worthless, we think it well to remind farmers of the objections attending them.

Where the trees are young we would advise that new tops be grafted on of superior sorts, and all old trees cut down and removed. A neighbor who has several very large trees of the Pryor apple, that have not fruited for many years, says he intends disbarbing them at a certain time in summer, with the view to cure them of *cluster cups* and cause them to bear again. We think he will fail in this, and would suggest that they be added to his wood pile. J. FITZ.

Albemarle County, Va.

The Pear Tree Scale.



This insect is a Coccus, probably the *C. cryptogamus*. They subsist upon the sap which they draw from the trees by means of their beaks thrust into the bark. In the autumn and through the winter they are in a dormant state, but become active in spring and rapidly increase in numbers during summer.

The scales as they appear in winter are "less than a tenth of an inch in length, and have the form of a common oyster shell, being broader at the hinder extremity, but tapering towards the other, which is surmounted by a little oval brownish scale. The small ones, which are not more than half the length of the others, are of a very long oval shape, or almost four sided, with ends rounded; and one extremity is covered by a minute oval dark-colored scale." These little dark-colored scales on one of the ends of the cases are the skins of the lice while they were in the young state. The large whitish scales are those of the female insects, and the smaller those of the male.

The young lice are very small, of a pale yellowish brown color, and of an oval shape, very flat, and appearing like minute scales. They move about for awhile, at length become stationary, increase in size, and in due time the whitish shells are produced, and the included insects pass from the larva to the pupa state.

For destroying the insects Harris recommends "a wash made of two parts of soft soap and eight of water, with which is to be mixed lime enough to bring it to the consistency of thick whitewash. This is to be put upon the trunks and limbs of the trees with a brush, and as high as practicable, so as to cover the whole surface, and fill all the cracks in the bark." The proper time to apply the wash is in the spring, when the insects are young and tender. Another wash, says Vlek, that may be used in the same way, is

composed of two pounds of potash dissolved in seven quarts of water. Common salt at the rate of a quart dissolved in two gallons of water, has also proved destructive. Still another remedy is kerosene oil, which may be applied pure without injury, but the better way is first to mix the oil with milk and then to dilute it with water.

A New Way of Preserving Fruit.

A great deal of fruit is being shipped east from California. The amount is much larger than at this time last year. Among the shipments has been a car load of assorted fruit, put up in the Dietz packing, a recently patented process. The Suisun Republican says that the preservative agent is carbonized wheat bran, so that it can be shipped easy by slow freight, and sold off as the demand is made for it without being compelled to sacrifice it for fear of loss. The car load shipped goes to Philadelphia. It contains grapes, plums, peaches, apricots, etc., and goes as fast freight, though hereafter it is the plan to ship as slow freight, as it will reduce the charges over one-half, or from \$1,100 to \$500 a car load to New York. If fruit can be packed in this inexpensive manner, preserved indefinitely and shipped anywhere, the business will develop. Fresh peaches at Christmas and grapes at mid-winter are very alluring, and Mr. Dietz says they may be had by simply packing them in wheat bran reduced to charcoal.

On Planting Trees.

In continuation of our remarks on shade and flowering trees, we will for the present confine ourselves to a few brief statements of the value of some of our small native trees, which appear, in a great measure, to have been overlooked or undervalued by planters, and this may have been, perhaps, because they are common, or to be had in our woods for the digging up.

And first among these is the White-flowering Dogwood (*Cornus florida*). No one not entirely destitute of taste but must admire this spring bride of the woods as she unfolds her mantle of white involucres, reminding the farmer that it is time to get his corn into the ground. The usual form of the tree is what we would term symmetrical, therefore a desirable object for a lawn, being not at all dainty about the kind of earth in which it may be planted, provided it is not wet, and is easily transplanted or removed from its native habitat to the garden, as its roots keep near to the surface. Both the leaves and fruit are very ornamental in the fall.

The Red bud, or Judas-tree (*Cercis Canadensis*), is a very fit companion for the last, although as a tree it is not quite so handsome in form nor gay in inflorescence. Still its numerous small purplish pea-flowers are born in clusters along the small and larger branches before the leaves expand, presenting a pretty and yet rather singular appearance in a woodland scene.

Virginia Fringe-tree (*Chionanthus Virginica*). We have never seen this over twenty feet in height, and if not cut into form when young is apt to be somewhat irregular in its general outline. The leaves are ovate-oblong and smooth on the upper surface, but the great charm of this tree is the graceful drooping panicles of pure white flowers which make their appearance early in June. It is found all through the Middle States, growing wild in shady, moist places along the margins of streams, yet we find it to thrive well in dry land in our nursery. The fruit is purplish in color, of a very bitter taste, and has the appearance of a small olive, to which it is closely allied.

The Mountain Ash, or Rowan-tree (*Sorbus Americana*), is much sought after on account of its ornamental clusters of scarlet fruit, which individually are not larger than

ordinary peas, yet in late fall they are certainly very beautiful, but withal are the only feature in the tree that may be reckoned attractive. The European Rowan-tree has larger fruit, and is altogether a more desirable ornamental tree. The fruit of both kinds is much sought after by birds; therefore we would advise planting a few trees on the outskirts of the garden for the benefit of the feathered songsters.

Well, for the present we will drop this specific way of talking about trees, as some of our readers may say, "Oh, what do we care for pretty trees? We want something to gratify the appetite;" which is as much as to say they have no taste for the beautiful. Now, to such we would suggest that, to adorn their lawns and at the same time have something to soothe their palates with, they plant cherry, pear, quince and crab-apple trees, and if not all these, pray do plant some kinds, as trees will be growing while the planters are sleeping.

Some shortsighted people have been known to say that were they to plant trees, they did not expect to live long enough to reap any benefit therefrom. Now, about ten years ago, while we were planting a lot of specimen pear trees on our place, a simple-minded gentleman asked us if we ever expected to gather fruit from them; and our reply was that we had not yet donned the fool's cap, and that if we were not permitted to reap any benefit, posterity would.

Planting for ornament is not intended to fill the pocket of the planter, but it certainly shows a progressive state of refinement and civilization.

But to take another view of the matter, we here affirm that planting trees can be made profitable, as owners of land have frequently rough patches that cannot easily be reclaimed for farming purposes. In such places timber trees, as oak, chestnut, walnut, hickory, locust, ash, birch, poplar and maple, for any or all of these kinds some spot may be found where they will thrive, and if properly cared for will ultimately prove a profitable investment. And as proof that the last statement made has been verified elsewhere, we remark that during our juvenile years the first work we ever got paid for was for planting forest trees. These were put down thicker than they were ultimately intended to stand. So about forty years ago the timber from the thinning out of these plantations, when sold, realized money enough to pay the first cost of the trees, planting, keeping and cutting. The kinds referred to consisted mostly of larch and Scotch pine.

It is not to be expected that our hardwooded trees—as oak, etc.—would become available for mechanical purposes as soon as those named above, but there are timber trees in this country that grow much faster, and their timber becomes sooner available, than does the larch, as we know of numerous examples of the Carolina poplar, only seven years old, that are over thirty feet in height, with proportionate sized trunks. Therefore we say again, plant trees; for it is evident, from the way our primitive forests are disappearing, that any augmentation made to them by the present generation will not only add to their benefit, but posterity will be the gainers. WM. D. BRACKENRIDGE.

Govanstown, Md.

The Geneva correspondent of the *London Daily News* says: "In anticipation of the completion of the St. Gothard Railway, which will open by the way of Genoa the central European markets to American breadstuffs, the Austrian railway companies announce their intention to make important reductions in their rates for foreign bound cereals."

It has been estimated that in a prosperous season for cabbage not less than 12,000,000 heads of this succulent vegetable find sale in Philadelphia markets, and at least 5,000,000 of these are made into sour kraut.

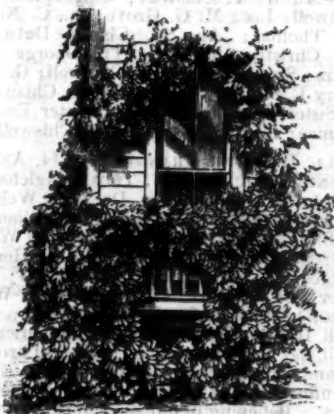
The Virginia Creeper.

Mr. Vick in his beautiful *Magazine* grows enthusiastic over the virtues of this plant. He says its value for ornament is appreciated in all parts of the country, but not, apparently, so generally, nor to the extent that its merits entitle it.

For porches, he says it is necessary to provide some kind of trellis, either of wood or wire, the latter being neatest and most durable. On the side of a house it will fasten itself by its tendrils, and on unpainted brick or stone houses it may be allowed to run at its own sweet will; on old wooden houses too it frequently takes possession, but it is not desirable to let it fasten on good houses made of wood, if intended to be kept in good order, and a wire or wooden frame work should be erected for it. For churches, it becomes a garment of grace and beauty, and some of the most elegant of these structures are clothed with it.

The facility with which this vine climbs trees makes it of value in covering dead trunks and stumps, thus transforming their ugliness into grace and beauty. Sometimes it may be allowed to take possession of trees, not dead, but become deformed, and which it will invest with new charms.

For a summer-house a rough frame-work of any desired form may be quickly covered with vines, and is far more appropriate for the garden than any elaborately constructed, or even rustic one.



VINE DRAPING A BALCONY.

Balconies may be elegantly draped and festooned by the skillful training of the vine, and be made to assume some charming phases.

Handsome arches between buildings and over walks may be made with the vines and their verdure thus made conspicuous when otherwise there would be nothing to attract the eye.

Fences and walls may be covered with the creeper and made very handsome; and the bases of houses may be clothed with it, using care to keep the vine in its place and not allowing it to stretch upwards, as it will if not checked occasionally.

Numberless other uses might be mentioned for which this luxuriant vine is applicable, and half its worthy praises have not been said or sung.

Its crowning glory is its coloring in autumn; and its hardness is such that it grows anywhere and everywhere; yet no plant better repays generous treatment.

The Sago Palms.

Messrs. Editors American Farmer:

The *Cycas circinalis* mentioned by "Hortus" in your last issue is not the Sago Palm. It is *Sagrus Rumphii*, a different looking plant, which gives the sago of commerce. SAGO.

"Hortus" said *Cycas circinalis* is one of the plants from which the sago of commerce is extracted; and we find, on consulting Lindley and Loudon, they sustain the statement. "Sago" says the palm that produces it is *Sagrus Rumphii*; but we know that the great bulk brought into market is extracted from the trunks of *Phoenix farinifera* and *Sagrus farinifera*, whilst there are still several other palms, natives of the East, which afford a pure marketable article.—EDS. FARMER.]

Two Plants in One Pot.

A correspondent of *Vick's Magazine* says a most beautiful object and one which attracts a great deal of attention in his greenhouse is a Wax Plant (*Hoya carnosa*) and a red-blooming sword-leaf Cactus, growing together in one large pot. The Wax Plant is trained on



a square frame, three feet high, flared at the top. The outside of the frame is covered with the rich foliage of the Wax Plant, while the long blades of the Cactus grow up inside of the frame-work, and the large brilliant red flowers push their way through the waxy foliage to the outside of the frame. After the Cactus is through blooming, the Wax Plant begins to bloom; so it is an object of beauty still, and well rewards anyone for the little labor bestowed upon it. The two plants, requiring similar treatment, will flourish growing in the same pot.

The Use of Glass in Gardening for the Market.—No 4.—Cauliflower and Lettuce.

"Frame lettuce don't pay any more," every market grower about Baltimore will tell you, and it is no doubt true that frame lettuce, like a great many other things, does not bring as much money as it once did, but that it is when compared with other things, as profitable to the grower, I am confident. Years ago I sold frame lettuce as high as ten, and once up to fifteen cents per head, at the wharf on Light street; but at that time we had to pay sixteen dollars for a barrel of flour, so that the price for lettuce was only a proportional one. I once used 600 sashes for lettuce alone, and usually commenced shipping late in February or early in March of the curled Simpson, the head or butter lettuce coming in about the last of March. The Simpson was usually sold by the barrel and did not bring as good a price as the head lettuce, which came in a month later, but I found it profitable, because it was out of the way early enough for me to use the same sashes for my tomato plants, cucumbers, etc. In growing lettuce in frames, my practice is to get good plants ready for the transplanting early in November. To do this the seed should be sown at intervals from the first to the twenty-fifth of September, so that plants of proper size may be plentiful, as the first sown may get too large in a favorable season. As soon as possible after November 1st give the frames a thorough dressing of manure and set the plants (if of Simpson) about six inches apart each way. The Butter or Lazy lettuce will need a third more space. Keep the sashes off the frames as late as can be done without injury. A freeze of 25 degrees after they are established will do no harm, but by the 1st of December it is best to have the sashes in place. Up to the 1st of February give all the air possible, by stripping the sashes down during the day time when the air is above freezing. After February 1st give air only by tilting the sash three or four inches at the back. Never use

a mat on a lettuce frame. I have grown hundreds of thousands of heads and never yet used a mat or shutter. Where mats or shutters are used there is too much temptation to leave them on during snow and dark weather, and the long continued freezing under them plays havoc with the plants. The freezing which lettuce gets in one night in an ordinary cold frame will do it no harm, provided it has the first of the morning sun to melt the frost shading off the glass and warm up the soil during the day.

Another plan of growing lettuce in frames in conjunction with cauliflower is but little practiced in market gardens, though all private gardens of any pretension in this vicinity have their cauliflower frames. In this method six cauliflower plants are set in each 8x6 sash and the remainder of the space filled in with a small variety of head lettuce. (I use Tennis Ball or Boston Market.) The lettuce is cut out in March, or as rapidly as it begins to crowd the cauliflower. Close attention is needed by cauliflower in frames, for if it is allowed to get to growing too much in the early part of the winter a subsequent cold snap will choke it, and worthless "buttons" instead of heads will be the result. To have cauliflower plants of suitable size for planting in November, it will be necessary to make several sowings from September 15th to October 1st. If the leaves are as large as a silver dollar they are much better than larger plants, as the danger of "buttoning" is less. The best crop of cauliflower I ever grew was from plants that were barely large enough to handle by the middle of November. Every plant made a fair head and most of them very large ones. The fall before this, owing to a failure of my seed, I was obliged to buy plants. When they came they were large stout plants with leaves as large as a man's hand. With all the care possible, fully one-half of these plants "buttoned." The price which good large heads of cauliflower command in April and May will warrant all the care that can be taken with the plants. The same winter treatment advised for framed lettuce will suit cauliflower as well, with the exception that after the plants get to growing strong in spring they must have plenty of water to make good heads, and if rains are lacking the water must be copiously applied artificially, and if possible an occasional dose of liquid manure will help wonderfully. I prefer the Dwarf Erfurt variety, but whatever sort you use don't buy cheap seed; the best seed is cheaper at \$5.00 an ounce than poor stock given to you. W. F. MASSEY.

Hampton Gardens, Dec. 19, 1881.

The Potato and Its Culture.

Almost every one who lives in the country knows how to grow the potato, yet a few remarks on our mode of cultivation may not be out of place. Any dry, light soil suits them. Potatoes grown in a light sandy soil are much drier and sweeter than those grown in heavy clay, and new soil is to be preferred as it produces more and sounder tubers. The next point to be considered is the preparation of the sets. The potatoes intended for seed can be of any size; small ones are just as good as large ones, if not better. They ought to be cut four or five days, at least, before they are planted, and spread out on a dry floor until the wound dries. A little plaster sprinkled over them assists them to dry and also helps them to start the eye sooner. In cutting the potato, two eyes are all that ought to be allowed to remain on a set, and the sets made as large as the potato will allow, when strong stems will be produced.

In planting, the sets are to be placed with the eye upward and from twelve to fourteen inches apart in the row. The month of April we consider the best time to plant. They will succeed if planted in May or June, yet it ought always to be kept in mind that the earliest planted, in any dry soil, produce

the driest, finest and most abundant crops, and are not liable to be affected by the summer drouths. Last summer was one of unusual drouth, and yet the potato crop yielded at the rate of 150 bushels to the acre. Of course, the ground was made rich with manure. The manure used was entirely from the cow stable; the cows were bedded with leaves all winter and the manure kept separate. I consider this composition superior to any other for the potato.

In preparing the ground, it ought, if possible, be plowed early in winter and again in spring, (you will find in spring the ground considerably lightened thereby,) and harrowed over with a light harrow. Then run your rows off with a two-horse plow; run twice in the row, that is, up and down. The rows ought to be three feet and a-half apart, so as to give plenty of room to work them. There is very little gained by having them closer. In this furrow you spread the manure from a cart hauled over the ground. On the top of the manure you drop the sets and cover over with a one-horse plow, going up and down the row. In about three weeks or less before the potatoes commence to come above the ground, you level down the ridges by running a harrow over the whole ground. After they are up the foliage ought to be kept as uninjured as possible, either from the working or the ravages of the potato beetle. We know of no better remedy for the latter than Paris green mixed with plaster, and dusted over them while the dew is on; it is the most effectual remedy we have found to keep down the beetle. After this they will want to be kept clean, and earth plowed to the stems as they grow. The potato continues to form tubers until the flowers appear, and after that to mature those that are formed. The maturity of the crop is readily known by the decaying of the stems, though they are fit for use before this. The potato ought not to be left too long in the ground after the haulm has thoroughly whitened, otherwise they may take a second growth, or be injured by rains. When you plow your potatoes out they should be picked and put in small heaps in the shade for a couple of days, until perfectly dry before storing away, and all earth, refuse, and bruised or wounded tubers taken from them. J. E. K.

Farmers' Gardens.

Although farmers in general have not much time to spare for gardening, I cannot but think that many of them might find it both pleasant and profitable to cultivate a few acres as a sort of experimental ground in connection with their farms. To beginners in this line a few hints may be serviceable.—I aim at simplicity.

The rectangular form is best, and, for convenience in cropping, the length should be very much greater than the breadth. Prepare the ground in the most thorough manner, and arrange it so that all crops that occupy the land a year or more shall be together—say at one end of the lot. This may include flowers, small fruits, rhubarb, asparagus, herbs, &c. The remainder of the garden should get one good general plowing and manuring each spring.

Division second should include crops that occupy the land during the summer months, such as beets, parsnips, salsify, tomatoes, and many other things that need not here be mentioned.

Division third should be reserved for succession crops—peas, beans, lettuce, &c., followed by cabbage, cauliflower, celery, and the like. It must necessarily be plowed twice a year, and an opportunity is then given for a second manuring, also for experiments in special manuring, seed raising, &c. The crops on the second and third divisions should change places annually; those on the first may remain for several

years. It is presumed that the land is of nearly uniform quality throughout.

No crops that are usually raised on the farm should clutter the garden; everything should be sown or planted in rows; the rows for fine seeds should be laid off with a marker, and those for peas and beans with a skeleton plow. The rows should never, in any case, be less than two feet apart, as the farmer has no time to hand-hoe. He must use the cultivator. A small corner should be reserved for seed beds of cabbage, celery, &c.; but perhaps it would be more advisable to purchase plants from those who make it their business to raise them.

The above is a mere outline, but it can be filled up and enriched to any extent. The farmer who sighs after "a little farm well tilled" would be all the better confirmed in his views and aims by first proving the possibilities of a single acre.

The celery stored in my cellar is doing well; will refer to it again next month. Meantime I will say that the simplicity of growing and blanching the article by this new arrangement is likely to introduce it to farmers' and cottagers' gardens where hitherto unknown.

Out-door gardening is at a stand still, but the hot-bed season is at hand, which serves to keep us in mind that spring is approaching.

A veteran gardener, not far off, has no confidence in destroying the cabbage worm by means of hot water on an extensive scale on account of the difficulty of applying it at a uniform and proper temperature. Timely hand-picking would be his remedy. What say our brother farmers and gardeners on this momentous subject? For my part I anticipate better crops, and therefore less danger from the worm, and in the absence of a better remedy will trust to liming and hand-picking.

JOHN WATSON.

Early Spring and Summer Cabbage.

Though rather late in the season for the preliminary steps, I will give my management of these crops. They can be grown by the most simple and easy means. The seed is sown from the 15th to the 20th of September, and attention to date is important, as if too soon, they run to seed, and if later they will be small. We sow the seed of Jersey Wakefield and Flat Dutch in a border thoroughly dug and enriched, either in rows or broadcast, observing to keep the kinds separate. Sow moderately thick all over the ground. Tramp in the seed with the feet, then rake the whole evenly and smoothly, and if the ground be very dry give the bed a good watering. Towards the end of October or early in November the plants will be ready to plant out. Prepare some rich, well ploughed ground, run off your rows as if for corn, only a little deeper, three feet apart and dibble the plants, if of Jersey Wakefield, six inches apart in the row in the bottom of the drill, so as to cut out every alternate one in the spring and use as greens—we call them "collards." At the same time put in your Flat Dutch, eighteen inches apart in the row, being careful to set them down to the first leaf so that the stem or stalk is all under ground, for if left exposed they will be split by the action of the frost and injured in consequence. If you have any lettuce plants, dibble them between the Flat Dutch. By the 1st of December they will have hold of the ground, and if the weather threatens to be severe cover them over with some pine brush or whatever protecting material you have at hand. Towards the middle or latter part of March the covering must be removed and the cabbage have a working with the hoe. But before working put about two table-spoonfuls of bonedust around each plant and stir it in. We have tried plants in the same row without bone, and those that were boned came to head two weeks before the others and were larger and finer heads. Afterwards the cultivator and

plow will keep them worked until they are used. They should be kept well worked, and the ground never allowed to bake. Should the black beetle become troublesome, we have found the following remedy effectual: Take half a peck of land plaster, put it in a tight vessel and pour about a pint of kerosene on the plaster, cover it up tight and let it remain for two or three days. Dust with this mixture in the morning while the dew is on the plants. By timely and frequent use of this we have kept them in subjection, as also the green worm when it is used as a preventive, but if they are allowed to take hold it is hard to dislodge them.

By the 1st of June the Jersey Wakefield will be ready for the table, the Flat Dutch will be ready by the 1st of August and September, a time when white cabbage is very scarce. By this means I have saved a sowing of summer cabbage, and consider it an easier means of having cabbage all summer. I do not, by any means, pretend to say that this would suit a market gardener, but it would do for a family.

A FARMER.

Baltimore County, Md.

Horse-Radish.

Market gardeners near New York raise horse-radish as a second crop by planting it between rows of early cabbages, beets, cauliflower, etc., so that after these crops are removed the horse-radish occupies the entire ground. In this case the sets are planted two feet one way and eighteen inches the other, requiring about fifteen thousand per acre. In field culture more room may be given, making the rows three feet apart and planting the sets eighteen inches apart, requiring about ten thousand sets per acre. After the rows are marked out, holes are made at the proper distances with pointed sticks, the roots dropped in these and covered so as to be about two inches below the surface. During the first months the ground is well cultivated and kept free from weeds; during the latter part of the season the tops and leaves grow so rapidly and spread so much, that cultivation becomes unnecessary. Horse-radish, to do its best, requires a deep, mellow soil and an almost unlimited amount of manure.—*American Garden.*

The Grange.

National Lecturer's Communication.

SUBJECTS FOR SUBORDINATE GRANGES FOR JANUARY.

Question 1.—How to prosecute Grange work to accomplish the best results in Subordinate Granges during the year?

Suggestions.—Officers, doubtless elected last month, should now be installed, and each resolve to be in attendance at every meeting of the Grange, and to do all they can to make the meetings pleasant and profitable. So should every member determine to be equally as regular in attendance, and strive to make them interesting. Go to teach and be taught; see that the quarterly reports are promptly made to the Secretary of the State Grange, and all State dues paid; also that the semi-annual reports to the Master of the State Grange for the quarters ending March 31st and September 30th, 1881, be made, giving increase of membership by initiation and reinstatement, as well as the decrease by death or otherwise; the progress made in education, co-operation, success or failure, and the causes leading thereto.

Question 2.—What is co-operation?

Suggestions.—The consolidation of the efforts of many in any work is co-operation. Efforts of many co-operatively applied will accomplish wonderful results. Our Government is founded upon this principle, and success is in the direction and for the purpose in which its citizens apply co-operative effort. If farmers concentrate their efforts and co-operate upon Grange principles, they can shape the future destiny and welfare of

the Government. Through non-co-operation of farmers the capitalists and corporations control it to their own interests. An obstruction in a highway that one man could not move, and would be useless for him to attempt, twenty men co-operating might move with ease. By co-operation the largest mountains are tunneled from base to base in a single year, while individual effort would require a lifetime, and then fail.

The Grange in Canada.

The Grange organization has taken deep root in the Dominion. The system included, at first, a co-operative commercial supply, with an agent at Napanee, whose business was to receive and fill orders from the Granges. This agent soon found he was unable to meet the demands upon him, and it occurred to some of the leading business minds connected with the Granges that to give the agent assistance would not meet the case, but that the organization should have a mercantile establishment of its own, through which the business could be carried on. They therefore resolved to form a Grange wholesale supply company.

This company, which was a joint stock one, was composed of the Dominion Grange of Canada, the Division Granges, Subordinate Granges and members of the Granges of good standing. The capital stock of the company was put at \$50,000, which was divided into 2,000 shares of \$25 each. Each Grange that cared to take stock was regarded as an individual in the company. In October, 1880, the company established itself in the building on Front street, Toronto, where each month since has shown an excess of the preceding month's business. There are in this house twenty-nine clerks, twenty-four of whom were engaged filling the Grange orders, packing goods, dispatching, keeping accounts, etc., and the remaining five are travellers, whom the company keep always out visiting the Granges through Ontario, Quebec and Nova Scotia, each traveller staying one whole day in some Grange, which meeting had been previously arranged for.

The object of the association is to give the Grangers all through Canada the benefits of co-operation on commercial purchase; and that is accomplished in this way:—Before the travellers leave for a certain section they write to the secretaries of the Division Granges in that territory, asking each to name the Subordinate Granges within its division. Having obtained these names, each such Subordinate Grange is notified that on a certain day a traveller of the company will be with it, showing samples of goods and taking orders. On the day appointed the Grange therefore meets, and there is present at that meeting the farmer and his sons, and his wife and daughters. The samples are exhibited and each Granger hands in a list of what he wants; and the whole is made in one general list for that Grange. The goods thus ordered will be sent the Granges at the wholesale price, which arrangement is the merit of the co-operative system. All such orders are sent in to the Toronto Supply House, as well as the unsolicited orders; these are classified, the company going out and purchasing by wholesale for cash.

The association have very bright hopes for the future of their business, claiming that the principle of co-operation is an eternal rule of philosophy, the outcome of the present century's wisdom; that their company is the first such association that has been organized in Canada; that their trade from day to day, as the Granges come to understand it, goes on increasing; and that by-and-by they will include every Grange in Canada. There are now in Canada 840 Granges. Allow to each Grange twenty families, which will not be over the mark, and for each family an expenditure—in possible co-operative trade—of \$200 per year.

This would give a trade to the association if fortunate enough to get it all of \$3,360,000.

The co-operative feeling is, it is said, growing in the Granges, and extends not alone to the matter under discussion, but to insurance and lectures. First, then, co-operation begets a large number of lectures, and in turn those interested hope the lectures will beget co-operation. At the last meeting of the Dominion Grange a committee was appointed to consider the sending of lecturers into the field, and the said committee recommended steps in that direction, and the outcome of such recommendation was the decision to secure the services of a number of lecturers in the field at as early a date as possible. As the Dominion Grange Fire Insurance Company and the Grange Wholesale Supply Company are concerned in getting up the lecture scheme, it need not be doubted that the benefits of the engrossing co-operative system from insurance to supply, will be largely dealt with; while it is also a fact that every effort the Grange is making is towards a closer union, the working of all the Granges as one, the combining of individual interests into the one general interest, which will enable it by-and-by to live within itself, and of itself cheaper and better than any outside its sphere.

Maryland Granges.—Officers for 1882.

BUCKEYSTOWN, No. 4, FREDERICK COUNTY.—M. W. T. Chiswell; O. Capt. J. N. Chiswell; Lec., M. G. Grove; St., C. Newton Thomas; As. St., Claude Dutrow; Ch., Christian Thomas; Tr., George W. Myers; Sy., Sister W. T. Chiswell; G. K., Henry E. Smith; C., Sister W. T. Chiswell; P., Sister Kate Thomas; Fl., Sister Emma Thomas; L. A. S., Sister Annie Chiswell.

ALL HOLLOWS GRANGE, No. 14, ANNE ARUNDEL COUNTY.—M. Thos. S. Iglehart; O. John H. Sellman; Lec., Dr. Thos. Welsh; Ch., Emily C. Ditty; St., John W. Williams; As. St., Thos. R. Kent; Tr., Benjamin Watkins; Sy., Edwin A. Ditty; G. K., Henry Hodges; C., Sister Maria D. Iglehart; P., Sister Nell Iglehart; Fl., Sister Maria Williams; L. A. S., Sister Martha Dorsett.

All Hollows Grange, though numerically small, has a resolute, devoted band of brothers and sisters, whose high character gives an influence that mere numbers can never exert. Believing in our principles, and the adaptation of our organization to our wants, we buckle our armor anew, and resolve with the opening year vigorously to battle against all injustice and oppression, claiming only our rights and conceding the same to all others. We will struggle manfully to advance the cause of agriculture to the high position its importance entitles it to.

E. A. D.

CHAPEL, No. 65, TALBOT COUNTY.—M., Jas. M. Wooters; O., Jas. T. Wood; Lec., Chas. R. Wooters; St., Thos. P. Hopkins; As. St., Wm. F. Jump; Ch., Jas. H. Ridgeway; Tr., Geo. H. Tarbutton; Sy., Dr. Chas. H. Rose; G. K., Alta Smith; C., Mrs. Laura J. Wooters; P., Mrs. Nannie Smith; Fl., Mrs. Mary E. Wood; L. A. S., Miss Ada Jump.

LIMESTONE VALLEY, No. 70, HOWARD COUNTY.—M., Ferdinand C. Pue; O., Jno. S. Watkins; Lec., Andrew Adams; St., William Clark; As. St., Jas. T. Clark; Ch., Lloyd W. Linthicum; Tr., Miss Helen Harban; Sy., Jas. Harban; G. K., Jas. N. Miller; C., Mrs. Jane Harban; Fl., Miss Blanche Watkins; P., Mrs. H. T. Ridgely; L. A. S., Mrs. Kate Watkins.

FARMER'S, No. 74, QUEEN ANNE'S COUNTY.—M., J. E. Cooper; O., J. M. Knotts; Lec., W. F. Bailey; St., R. E. Cahall; As. St., John Mason; Tr., Francis Turner; Ch., Rev. R. L. Lewis; Sy., J. B. Thomas; G. K., W. J. Clark; C., Miss Mollie Thomas; Fl., Mrs. M. N. Cannon; P., Mrs. Francis Turner; L. A. S., Mrs. W. D. Lucas.

WYE, No. 99, QUEEN ANNE'S COUNTY.—M., John Dodd; O., Francis A. Bartlett; Sy., Chas. Burnite; Lec., E. B. Vandyke; Tr., Jas. H. Dodd; St., L. D. Evergam; Ch., John K. Skinner; G. K., T. B. Vansant; C., Mrs. L. D. Evergam; P., Mrs. J. K. Skinner; Fl., Mrs. E. B. Vandyke; L. A. S., Mrs. W. T. Higgins.

PATAPSCO, No. 125, BALTIMORE COUNTY.—M., T. B. Todd; O., John W. Sparks; Lec., A. J. Rogers; St., Thos. H. Dorsett; As. St., Frederick W. Krauk; Ch., Wm. T. Hackett; Tr., Gottlieb Stengel; Sy., T. Alva Merritt; G. K., Benj. F. Band; C., Mrs. S. R. Todd;

P. Miss Ella L. Boone; Fl. Mrs. Laura R. E. Todd; L. A. S., Miss E. R. Jones.

GARRISON FOREST, No. 153, BALTIMORE COUNTY.—M. Samuel Brady; O. Charles T. Cockey; Lec. C. T. Councilman; St. F. Sanderson; As. St. C. L. Rogers; Ch. J. Parsons; Tr. Wm. Fell Johnson; Sy. A. A. Rice; L. A. S., Sister Julia Carlisle; C. Sister Samuel Brady; Fl. Sister P. R. Owings; P. Sister U. L. Naylor; G. K. A. Cheneworth.

SUDLERSVILLE, No. 155, QUEEN ANNE'S COUNTY.—M. J. M. Sudler; O. G. S. Buss; Lec. B. S. Elliott; St. S. G. Walls; As. St. J. H. Seward; Tr. James Merrick; Ch. R. H. Higman; Sy. C. H. R. Merrick; G. K. L. Hart; C. Mrs. E. Dudley; P. Miss Addie Morgan; Fl. Mrs. J. Merrick; S. Mrs. M. Pardee.

GLENCOE, No. 160, BALTIMORE COUNTY.—M. Dickinson Gorsuch; O. Henry N. Merryman; Lec. Wm. B. Sands; St. Daniel A. Conn; As. St. J. P. Matthews; G. K. S. Louis Griffith; Tr. Miss Emma Stewart; Sy. W. W. C. Stewart; Ch. Nelson R. Miles; C. Mrs. D. Gorsuch; P. Mrs. Temple Gorsuch; Fl. Mrs. H. N. Merryman; L. A. S. Mrs. Mary E. Pearce.

CENTENNIAL, No. 161, BALTIMORE COUNTY.—M. G. H. Merryman; O. S. M. Anderson; Lec. G. M. Bosley; St. A. W. Shanklin; As. St. H. C. Merryman; Ch. Joshua Cain; Tr. Mrs. D. Jenifer; Sy. J. M. Matthews; G. K. Wesley Royston; C. Sister W. Stevenson; P. Sister Edwin Jessop; Fl. Ray Rider; L. A. S., Sophia Talbot.

BROAD CREEK, No. 162, HARFORD COUNTY.—M. Nathan P. Harry; O. Howard Stubbs; Lec. W. Scott Whiteford; St. D. A. Bay; As. St. H. A. Heape; Ch. H. F. Whiteford; Tr. David Harry; Sy. Charles F. Harry; G. K. Hugh Bay; C. Laura Bay; P. M. Jennie Heape; Fl. Annie Wallace; L. A. S., Sally Stubbs.

SUMMIT, No. 164, BALTIMORE COUNTY.—M. V. McCullough; O. J. N. Bull; Lec. P. S. Cross; St. J. B. Hampshire; As. St. J. E. Bull; Ch. Rev. C. L. Amy; Tr. W. McCullough; Sy. J. N. Shauck; G. K. G. M. Fultz; C. Mrs. S. McCullough; P. Mrs. Mary Bull; L. A. S., Miss S. McCullough.

Practical Co-Operation.

There were in Philadelphia four housekeepers who were neighbors, and poor. They were all widows, or worse than widows, that is they had to support their families by the labor of their hands, without assistance from the stronger sex. Being obliged to purchase everything in small quantities, and of the middlemen, or small grocers of the neighborhood, it occurred to one of them that if they could club together and buy a barrel of flour, their "daily bread" would cost them much less than on the present system. She consulted with the others and the experiment was tried. They were surprised and delighted at the result. Finding such an immense saving in their flour, they enlarged their operations. Other friends and acquaintances joined the impromptu association, and they extended their plan to all needed household supplies. Then they proceeded to hire a room, and an honest, competent woman to superintend the purchases and distribute the supplies; and now fifty families get all their groceries through the association at the lowest wholesale prices. Probably in time they will purchase their dry goods in the same way. From just such small beginnings came the great Rochdale association of world-wide fame.

Tribute of Respect.

WHEREAS, It has pleased God, in his all-wise providence, to remove from our midst Bro. John A. Balm, a charter member of Springville Grange, No. 158, and by his death the community has lost a good and faithful citizen, the family a kind husband and father, and Springville Grange a faithful member; therefore,

Resolved, That Springville Grange, No. 158, have its hall draped in mourning for ninety days, and that a copy of these resolutions be published in the Glen Rock Item, Farmer's Friend, and THE AMERICAN FARMER, and a copy be sent to the bereaved family.

J. D. SREARER,
JOSEPH R. MILLER,
JOHN F. SHAFFER,
Committee.

The American Farmer

"O FORTUNATUS NIMIUM SUA SI BONA NOBIS
"AGRICOLAS." Virg.

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EVERY MONTH.

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* Subscribers who have minerals, ores, marls, fertilizing materials, or other substances, will be advised through our pages, by competent chemists, as to their composition, uses and value, by forwarding specimens to this office, *expressage or postage prepaid*. Questions as to application of chemical science to the practical arts will also be answered.

* Persons desiring information or advice on diseases or injuries of domestic animals, will receive replies from a competent veterinary surgeon, by giving a plain statement of the symptoms, etc.

* Microscopical examinations will be made by an expert of fungus growths and other objects sent.

At the office of THE AMERICAN FARMER are located the offices of the following organizations, of each of which its proprietor, Wm. B. Sands, is secretary:

Maryland Horticultural Society.
Maryland Dairymen's Association.
Maryland State Grange, P. of H.
Agricultural Society of Baltimore Co.
Also, of the Maryland Poultry Club,
Geo. O. Brown, Secretary.

BALTIMORE, JANUARY 15, 1882.

OUR friends will be glad, we are sure, to learn that the approval of the changes in THE AMERICAN FARMER is general and emphatic—although some of its oldest subscribers express regret at the abandonment of the long-maintained octavo form—and this is shown by our receipts for the current month being far in excess of previous years. Up to the day we go to press the increase over the same period last year is quite fifty per cent.

Our Premiums.

The premiums we offer for clubs of subscribers to THE AMERICAN FARMER are designed to serve as some compensation for the exertions put forth by those who find it convenient and agreeable to give some labor and time to the extending of our circulation. Persons so inclined may, therefore, take upon themselves this work, and not only do a good service to their neighbors but be assured of an adequate reward for themselves. The articles are all good of their kind; they are varied and adapted to all tastes: and so easily secured that we hope the liberal offers we make will be abundantly accepted.

We renew our request that our present readers will interest some one in every neighborhood in this direction. Premium Lists, blanks, posters, specimen numbers, &c., will be sent on application.

We make our acknowledgments to our numerous contributors for their articles for THE FARMER'S columns, and we call upon all who have information or experiences likely to be of general interest to communicate them.

Prizes for Essays.

A prize of twenty-five dollars is offered by the publishers of THE AMERICAN FARMER for the best essay furnished on each of the following subjects:

1. Mixed farming, including the keeping of live-stock, poultry and the dairy, and the producing of fruits for market, with recommendations as to the best rotations of crops for the Southern Atlantic States from Maryland to South Carolina.

2. The advantage of raising improved farm live-stock in the present state of agriculture in Maryland and States to the south—say Virginia, the Carolinas and Georgia.

3. The routine of successful trucking for the Baltimore and Northern markets, with suggestions on the cultivating, handling and shipment of leading crops of vegetables and small fruits, duplication of crops, and recommendations of varieties, manures used, etc.

4. Growing fruits as farm crops in Maryland and Virginia, with methods of cultivation and lists of approved sorts.

5. The system or crops best adapted to supersede in part the tobacco crop in Lower Maryland, now as a rule so unprofitable.

The essays are to be handed in by February 10, 1882. For further information, see preceding numbers, or address the editors.

The American Farmer in its New Form.

The commendatory notices of the contents, form and make up of the initial number of our new series are so numerous that we can give space to but a few of them.

The Sun, Baltimore, says: "With the New Year the old-established agricultural periodical, THE AMERICAN FARMER, comes to us in a new dress and a new form, and has been changed from a monthly issue to a semi-monthly. The change will be found an improvement, while the more frequent publication will enable it to give the agricultural news of the day with more rapidity and freshness. The type, paper and illustrations of the present number make it an agricultural paper of great excellence, and give it a rank among the best of its kind in the country."

The Ægis, Belair, Md., says: "This excellent periodical, like good wine, improves by age. The first number in its new dress is handsomely printed, well illustrated, abounding in valuable articles in every department of farm work, and a Home Department for the ladies."

The Examiner, Lovington, Va., says: "This old and well-known farm journal dons a new and attractive dress with the New Year. It is a decided improvement in its appearance and is, we take it, sure evidence of financial prosperity. Well it deserves all the success it can achieve! It is a sterling work, and, though published in Maryland, has always something of special interest for Virginia farmers. We commend it to them."

The Spirit of the Times, Sumter, S. C., says: "THE AMERICAN FARMER published by Samuel Sands & Son, Baltimore, comes to us this time in its new dress. It is undoubtedly the most thorough going and practical agricultural paper in the United States. In Agriculture it occupies the position which the Scientific American does in Machinery, &c. The last issue is full of matter which every farmer should read."

So many compliments have been paid the neat appearance of THE FARMER, that it is proper we should give due credit where it belongs and say that it is printed by Mr. John Cox, corner of Pratt street and Spear's Wharf, Baltimore, whose experience and skill enable him to produce the best mechanical effects, and to whose painstaking care, we and our readers are indebted for so clearly and handsomely printed a paper.

The Poultry Show.

The first show of the new Maryland Poultry and Pigeon Club promises to be a very attractive and successful one. The date of opening, it will be remembered, is January 31, and the commodious Raine's Hall has been secured for the Exhibition. Breeders of improved poultry throughout the State, and beyond, are invited to contribute from their flocks and lofts. Entries close on the 24th instant, and those interested may obtain premium lists by applying to the Secretary, Mr. Geo. O. Brown, at THE AMERICAN FARMER office.

Pleuro-Pneumonia in Maryland.

Under date of December 27th, 1881, the U. S. Commissioner of Agriculture wrote to the Governor of Maryland that the investigation conducted by Dr. Rose, under the direction of the Department, showed that the lung plague not only has prevailed for a number of years, but exists at the present time among a number of herds in widely separated localities in the State. The Commissioner suggests legislative enactment authorizing the Governor to forbid traffic from the infected districts would be of great value. The investigations of Dr. Rose, therefore, fully confirm what we said several months ago as to the presence of the disease in this State, and the laxity which marked the execution of the law designed for its suppression.

It gives us great pleasure to learn that a new company has been formed under the style of "The Rasin Fertilizer Company" to resume and continue the business of Messrs. R. W. L. Rasin & Co., whose financial embarrassment secured for them the sympathy of all who knew the extent of their operations, the liberality of their methods, and the enterprise and public spirit of the energetic head of the firm, who, it is presumed, will have the management of the new company.

Little's New Sheep Dip.

Mr. John E. Tappan, of the Roane Mountain Stock Company of North Carolina, says of this fluid, which is advertised in our columns:

Your Dip, I think, does all you claim for it, and is especially the best, inasmuch as it is safe to use in the winter weather if one is so unfortunate as to require it. I used it last spring on my team horses, that were suffering from scratches and sore legs, owing to the muddy and frosty state of our roads. I used some of the Dip that was left in the dipping-box after we were through with the sheep and goats. It had been standing in the box a couple of weeks, I suppose, before I used it. Had the horses' legs dressed with it morning and night, and whenever they came in from work. In a very short time they were cured, and I attribute it to the healing properties of the Dip, for I always had their legs washed whenever they came in from work on wet or muddy roads, but in spite of all my care (we had such half-frozen, muddy roads) they were sore and cracked on leg and heel. I have also cured my saddle-horse of a very sore back, so I know that it is good for that. I also used it in docking and castrating lambs, kids and young cattle, and for all sores and wounds liable to become fly-blown.

MESSRS. THOMAS NORRIS & SON offer new crop peas for spring planting, and all interested should correspond with them. This old established house also keep a general assortment of agricultural implements and machinery, to which they call attention.

The Best Reading.

Every family that desires to provide for its young people wholesome and instructive reading matter should send for specimen copies of the Youth's Companion. Its columns give more than two hundred stories, yearly, by the most noted authors, besides one thousand articles on topics of interest, anecdotes, sketches of travel, poems, puzzles, incidents, humorous and pathetic. It comes every week, is handsomely illustrated, and is emphatically a paper for the whole family.

THE House of Delegates of Maryland has voted to create a special committee on the inspection of tobacco, and the following members have been appointed: Messrs. Mudd, Gourley, Hammond, Canter, Cheney, Duvall and Young.

WE hope there will be no intermission of the exertions of our friends in their efforts for the extension of the circulation of THE AMERICAN FARMER. On our part, we promise to endeavor to make it more than ever worthy of their favor and support.

The Montgomery County Farmers' Convention.

This annual meeting was held on the 12th inst., at Sandy Spring, the attendance being large and the interest unabated. We regret not being able to be present as usual, but we give a report in brief of the proceedings which we hope to supplement in our next issue by some of the papers read. Mr. Henry C. Hallowell was president, and Messrs. Allen Farquhar and Chas. F. Kirk, Secretaries.

Mr. Hallowell, on opening the meeting alluded very pleasantly to the nature of the business which had called them together. Investigation, said he, is going on all about us in every walk of life. In every branch of science and art forces are used in co-operation to obtain a general result. Co-operation is as much needed in the science of farming as in any other department, and this convention is one of the first steps towards it. Our profession is not altogether one of plodding and digging, not a barren routine, but, above all others, is open to investigation and research. Our convention is for a twofold purpose, that we may become better acquainted, but, more than all, that we may learn something. "That man that lives to himself alone does not know what life is." We must do our part to make our noble profession what it ought to be.

The committee appointed to consider the advisability of a public grain weigher in Georgetown reported that it was not deemed advisable as yet. On the action of the Convention of last year towards the erection of a farmers' hotel and market in Washington, D. C., in which there had been much interest displayed, the committee of which Mr. B. H. Miller was chairman, reported that a resolution would be submitted to Representative Urner, looking towards the securing of a public reservation for that purpose.

Mr. Thos. J. Lee read a report on his labors towards the extermination of the hog thistle and the discussion it evoked provoked much amusement. The unanimous opinion was that the hog thistle gives more trouble by its presence on the farm, than any other pest the farmer has to fight against, and the efforts thus far towards its stamping out have rather encouraged its growth.

A paper on ensilage was read by Mr. Edward P. Thomas giving his experience in the construction of silos for the preserving of green fodder, and its entire success. Other farmers spoke favorably on the same topic.

The discussion on the use of pulverized lime, introduced in this county with other advanced methods by Mr. John M. Smith, lately of Baltimore, who has recently settled in this neighborhood, was participated in by Elisha J. Hall, Caleb Stabler, Hobart Hutton, Chas. Stabler, Judge Boule and others. The whole question was referred for further action by the Convention at a future meeting.

The annual summary of the minutes of the Senior Club of this county, was read by Mr. Wm. Henry Farquhar.

The report of the Enterprise Club, was read by its Secretary, Mr. Edward P. Thomas.

The report of the Montgomery Club was read by Mr. Roger Brooke, and the statistics of the average yield were shown to be equal to that of the Senior Club or the farmers of other sections. The pleasant rivalry existing between the clubs makes these different reports the spiciest part of the proceedings, and their reading is attended with much amusement as well as profit.

A series of questions affecting farming interests was next brought before the meeting, five-minute speeches being allowed. The first was, "Are barbed wire fences desirable?" Judge Boule told his experience in their favor, as well as that of Gov. Hamilton in the same direction. The question was fully discussed, the majority being in favor of them. The next, "What is the best style

of reaper, taking into consideration the size of the farm?" The use of self-binders for farms of one hundred acres or less was not commended. The next question was decided that ten acres of permanent pasture was profitable on a dairy farm of one hundred acres. "Are the benefits to be derived from a railroad passing through our farming communities so great as to compensate for the injury and inconveniences?" was affirmatively decided. The last three queries—"Can an effective and practical law be devised for the preservation of sheep from dogs?" "Are we prepared for the Washington county system of constructing turnpike roads?" "Would it be advisable to have a county treasurer?"—evoked full discussion. That on the depredations of dogs among sheep created considerable feeling, and a resolution was passed naming a committee of three to draft a suitable law to remedy this evil, to be forwarded to the Legislature. The meeting was closed about nightfall, by remarks by Mr. Hallowell.

Home Department.

The Care of Health.

It is a common saying that "we do not value health until we lose it;" yet the ready acceptance of it as true rarely has the effect of making us realize it practically. I don't know that we who have our homes in the country are any less careful of ourselves than others, but we are necessarily more exposed to influences that so easily undermine health that a few words of caution may be the timely hint to some unwary sister, and thus perhaps save life that is more or less valuable to some one.

Where our circumstances enable us to rely chiefly on servants to do such housework as leads more or less to exposure that in this variable climate tries severely the best of constitutions, our own danger lies in making ourselves so delicate and so sensitive to the effects of cold or damp weather that upon occasions when we are tempted out we are easy victims to diseases incident to such conditions. These, however, have leisure in which to reflect upon what ought to be known to every one of ordinary intelligence, that human plants are like those of the vegetable world—if accustomed to tender treatment they will bear no other without injury; and it is most likely to be a desire for self-gratification that leads them to disregard their own convictions by attempting some unusual indulgence in the way of rides or visits, through which they are laid upon a sick bed, and perhaps in their graves.

It is, however, with those whose duties seem to make the risking of exposure more pardonable that I would plead for more regard for health and life they can so little afford to squander. Farm life with us means chiefly that of the small farm which will not support a liberal supply of help, either indoors or out. When there is an abundance of farm-work—that is, during planting, growing and harvesting seasons—the provident housewife usually allows herself a reasonable amount of help if she can get it, but when everything is housed, and the husband settles down with little or no help, she begins to think she can do the work of the house herself, with perchance the aid of little hands and feet. God pity the husband if he is the one to suggest it, and bless him if he says nay. I have known more mothers to be laid in their graves in the prime of life through this unwise effort to help make the family finances hold out by doing their own work during the winter, than from any other one cause. If all husbands were like the exceptional ones who have a care to save their wives by bringing in wood and water, and by hanging out the clothes when the ground is not in a condition for her to be tramping around on it, or if his readiness to help in lifting or saving steps, when he is sitting

about the stove doing nothing, encourages her to call upon him when it is proper she should do so; women might more safely undertake to do their own work; but unless she belongs to the working class who by having always been used to rough and hard work are hardened to it, no woman in ordinary circumstances ought to attempt these hardships if she values her own life or the life it may be her province to give to others.

The farmer of the present day is very much given to selecting for his helpmeet one who is not used to the ordinary work of a farmhouse. Very likely he is attracted by the absence of such indications as hard work leaves behind it; yet how almost sure he is to look for the performance of such duties from her as will certainly destroy what he most admired in her appearance, as well as her health. To measure the capabilities for hard work of one who has never been accustomed to it with those of mother or sisters, whose lifelong habits have not only developed superior physical strength, but have also made them masters of the situation so that labor is simplified to them, is rank injustice; and the man who places his wife in this disadvantageous position needs a level head and kindly heart to prevent her own unduly excited ambition, or the expectations of those about her, from leading her into the error of wasting everything that is of real value to herself and to those she wishes to serve best.

What we need most, farmers' wives especially, and particularly during the earlier years of maternity, is calm, cool judgment as to what we can do safely under the circumstances, and the courage to leave undone, or to be otherwise provided for, whatever we will be risking health to undertake. If the husband fails to realize the necessity for such care, and looks for competition on our part with his mother, whose children are all raised and possibly rendering valuable assistance, his shortsightedness is to be pitied; but, rest assured if we preserve health and strength such other attractions as first won his allegiance, we will be the conquerors in the end, whereas if we wear out bodily strength and good temper in the effort to economize or to go through some special routine of work, whether we are physically able or not, because it is expected of us, we may go to an early grave, leaving perhaps little ones to the coming stepmother, whose way may have been smoothed by our sad experience, or we may linger on, a burden to ourselves and family, through years of sorrow and suffering.

It never was, and never will be, economy to waste health, no matter what the present gain may seemingly be. Doctors' bills, medicines and lost time invariably run away with such savings, and where the loss of the head of a family is sacrificed to the pitiful ambition to save money, the foolishness of it is past understanding, and the wonder is that any one having a grain of influence, or authority to have prevented such a calamity, can even reconcile themselves to such blindness.

The most beautiful sight in domestic life is a mother in good health surrounded by her grown-up family. It almost always shows good temper as well, and the devotion of her husband beyond that of their "honeymoon" is pretty sure to follow. CERE.

What Makes a House Beautiful.

It is an excellent thing to have a well-kept house, and a beautifully appointed table, but after all, the best cheer of every house must come from the heart and manner of the home mother. If that is cold and this ungracious, all the wealth of India cannot make the home pleasant and inviting. Intelligence, too must lend its charm, if we would have home an Eden. The severe style of house-order neatness seldom leave much margin for intellectual culture. Even general reading, is

considered as out of the question for a woman so hurried and so worried with her scrubbing and polishing, and making up garments. A simple style of living and house-furnishing would set many a bonded slave at liberty, and add vastly to the comfort of all in the house.

Hospitality rarely prevails in these spotless line-and-letter houses. Company disarranges the books, and disorders the house, which had work enough in it before. The mother cannot throw off her household cares, and sit down for a real heart-to-heart converse with the old friends of her childhood. Still less can she enter into the joys and pleasures right and delightful to her own children, because of the extra work of clearing away it will be likely to make.

With all your toils to make a house beautiful, do not neglect the first element of all, to beautify yourself, body and soul. A sweet, loving word, and a warm clasp of the hand, are far more to a guest than the most elaborately embroidered lambrequins at your window, or the most exquisite damask on your table. There are bare cabin homes, that have been remembered with pleasure, because of the beautiful loving presence there; and stately palaces, which leave the impression of an iceberg on the mind.

Household Perils.

Under this head the Boston *Journal of Chemistry* mentions several dangerous substances which find their way into households. There are two or three volatile liquids used in families which are particularly dangerous, and must be employed, if at all, with special care.

Benzine, ether and strong ammonia constitute this class of agents. The two first-named liquids are employed in cleansing gloves and other wearing apparel, and in removing oil stains from carpets, curtains, etc. The liquids are highly volatile, and flash into vapor as soon as the vial containing them is removed. Their vapors are very combustible and will inflame at a long distance from candle or gas flames, and consequently they should never be used in the evening, when the house is lighted.

Explosions of a very dangerous nature will occur if the vapor of these liquids is permitted to escape into the room in considerable quantity. In view of the great hazard of handling these liquids, cautious housekeepers will not allow them to be brought into their dwellings, and this course is commendable.

As regards ammonia, or water of ammonia, it is a very powerful agent, especially the kinds sold by druggists. An accident in its use has recently come under our notice, in which a young lady lost her life from taking a few drops through mistake. Breathing the gas under certain circumstances causes serious harm to the lungs and the membranes of the nose and mouth. It is an agent much used at the present time for cleansing purposes, and is not objectionable if proper care is used in its employment. The vials holding it should be kept apart from others containing medicines, etc., and rubber stoppers to the vials should be used.

Oxalic acid is considerably employed in families for cleaning brass and copper utensils. This substance is highly poisonous, and must be kept and used with great caution. In crystalline structure it closely resembles sulphate of magnesia or Epsom salt, and therefore frequent mistakes are made and lives lost.

Every agent which goes into families among inexperienced persons should be kept in a safe place, labeled properly and used with care.

THE Madison county, Va., woolen mills are reported to be doing a thriving business, with more orders than they can fill, rendering it necessary to add new buildings and machinery, which will be done the next spring.

Domestic Recipes.

ANGELS' FOOD.—One and a half tumblers of powdered sugar; not quite a tumbler of flour; sift each several times; the whites of ten eggs; one teaspoon of cream tartar (not baking powder); a small pinch of salt. Beat whites of eggs to a stiff froth, add sugar and flour, and last, flavoring, lemon or bitter almond.

DELICIOUS ICE CREAM.—Take the cream from one good large crock or pan of milk with a skimmer, in order to get as little milk as possible with it; beat this with an egg-beater in a large bowl until it is thick and light; then add a tumbler of powdered sugar and any flavoring you like; when well beaten together add, a spoonful at a time, as much freshly fallen snow as it will take until it is the consistency of ordinary ice cream. This will make about one gallon.

If a small piece of sulphur is occasionally thrown upon the fire in the smokehouse, it will effectually prevent skippers and bugs from making inroads upon the meat; nor will it produce any effect on its flavor save on the mere surface of the skin.

Cotton Seed Oil vs. Lard.

We clip the following in regard to the much talked of subject, written by Mrs. J. P. Walker, of Bay St. Louis, Mississippi, to the *Southern Live Stock Journal*:

I have been using cotton seed oil for more than ten years. In view of this long experience, I think I am fully prepared to pass judgment upon its merits, and I unhesitatingly say that I regard it as far superior to lard for culinary purposes. When properly used it is imperceptible to the taste, except perhaps in the case of biscuits which are to be eaten cold for lunch; in that case lard or butter is preferable, but for everything which is to be eaten immediately, the oil cannot be detected.

For frying fish and oysters it is far less liable to burn than lard, and a much larger quantity can be used without waste or extravagance, as what is left can always be strained into a jar and kept for repeated use, with the addition of more as needed. It does not become stale and rancid, and does not retain the odor of fish. For frying fish or fritters or for baking waffles and batter cakes it should be kept hot on the stove in a suitable vessel, or they will absorb too much of the raw cold oil.

For corn bread I add it hot, the last thing; this makes the nicest egg bread without eggs. For waffles made with cold boiled rice or for cornmeal batter cakes the addition of a little oil in the batter makes it as rich and tender as though two or three eggs were used.

I have not tried it for cake except for soft ginger bread, where it perfectly supplies the place of both butter and eggs.

For browning chopped onions and flour, for stews and gravies, it is not so liable to burn as black as lard, and gives a very rich appearance, as more or less of the oil rises to the surface in "eyes."

I first began the use of oil from hygienic, not from economic motives, as I could then procure only the highest-priced bottle salad oil. The oil as it comes fresh from the refinery is limpid, pure and sweet, with the color, taste and odor of the bottle salad oil, supposed to be genuine imported olive oil, the most of which is, however, either lard oil, or cotton seed oil—the highest price being paid for the bottles and the fancy labels, not for the contents.

From a hygienic point of view, I consider it a most valuable substitute for lard, keeping the blood free from impurity and humors with which it is so frequently loaded where lard and butter are frequently used in cooking.

I think that I have said enough to show that, in my experience at least, it proves a

most valuable substitute not only for lard, but for lard and eggs both, where both are usually required; and that its general use would be found profitable and advantageous, on both sanitary and economic grounds.

The Brents' Experiment.

By KALMIA.

Christmas-tide had just set in, Advent Sunday having heralded the fact, and the young Brents, in common with the rest of the children of the church, were ready to set about whatever might offer in the way of church work. There were five of them—Jennie and Samuel were the eldest, Tommy was a little fellow only old enough to catch the spirit of the season, while the intermediate little girl and boy supposed themselves to be of more help and consequence at such times than any of their elders.

Mr. Brent's farm and home were nearly three miles from the church, yet, as is often the case, they were far more regular in availing themselves of its privileges than those living under its shadow. This of course had its effect upon the children, and made them always to be calculated upon when their services were needed. Their home was all that comfort and refined taste demanded; their means sufficient for a corresponding style of living, yet not affluent. Mr. Brent's motto being "live and let live," he never sought to accumulate until every natural claim was provided for, the welfare of those he employed was considered next to his own, and every living thing about him was made comfortable before any thought was given to luxury or hoarding. Such men do not grow rich, except by accident.

Both Mr. and Mrs. Brent endeavored in every possible way to develop all that was good and noble in the character of their children, and often felt the want of something outside of home to call these qualities into active exercise. On the evening when the first thread of our story was taken up, there was a gathering in the family sitting-room, so expressive of their usual home life, that an introduction to them there would give us an insight to the various members beyond what would probably be gathered under any other circumstances.

Mr. Brent had just returned from his last round of inspection to assure himself of the security and well-being of the animals, and seated himself in comfort beside the open fire to watch Lilly and Bob, two of the younger children, roast chestnuts, which they distributed as fast as they could, but not by any means keeping up with the demand for them. The mother, Jennie, Samuel and their teacher, Miss Lane, were gathered about a well-lighted table in the middle of the room, variously occupied. For a while the spirit of fun was rampant, chestnuts in every stage from raw to roasted being the ostensible excuse for it. A little later, the little folks gone to their beds, the older ones drifted into a talk about Christmas, and what was to be done in the church or Sunday-school in connection with it. Of course the customary tree for the Sunday-school was expected, and the question of contributions talked over. Neither Jennie nor Samuel, however, seemed much interested, and Samuel finally "bothered" Sunday-school trees and all that, while Jennie tried feebly to defend them as a time-honored institution. "It's a great do, and nothing comes of it," said Samuel; "half the toys and things they get are destroyed before they get home, and not half the children are satisfied with what they get. Now if they'd give them a good dinner, and let them have a real jolly time of it, they would think it a treat; but they get sick of the same parade every year."

"I do wish," added Jennie, "that we could do such things as they do them in England."

"Or in books," said Samuel. "I doubt whether such things work any better there than here if the truth was known, but they just write 'em up."

Mrs. Brent, who liked to have the young people discuss matters generally without interruption until they had expressed themselves pretty freely, now took up the subject and endeavored to explain to them the different condition of things in England, where the church work was essentially a part of the every-day work of all classes, and became so well systematized, and the different classes were so well defined, that all festive occasions could be used by one class for the pleasure or good of those they wished to reach, without any risk of offence or undue assumption of patronage. And also that the extensive houses and parks made the festive gatherings seem much more important than they possibly could in our country, except in very rare instances. In regard to Sammy's complaints of the usual methods at home, she was disposed to agree partially with his views, but then she added: "How can we make a new

departure from it? The dinner or supper would do very well, if so many of the children were not so well fed at home that it would be no treat to them, and they, I presume, are the ones who are dissatisfied with what they get."

Miss Lane then gave it as her opinion that these little efforts of the church to emphasize its care for the children of its fold were allowed to absorb too much of the interest in that direction, and they were expected to be a substitute for all other and more substantial efforts for the general welfare on the part of individuals.

"I don't know that I understand your meaning clearly, Miss Lane," said Mr. Brent, who by this time had dropped the paper he was reading, and become interested in the discussion.

Miss Lane, with a little hesitation, probably because she was entering upon a subject to which she had given much thought, and was therefore at a loss how to convey her real meaning without saying too much, replied: "I suppose I did not make myself understood, because I took up the thread of the discourse in the wrong place; my mind was following Samuel's original objections to the usual customs, and having had the same in my thoughts this good while, I merely followed them out with what seems to me the reason why these well-meant efforts to give a reasonable pleasure to the young people are almost a failure."

"Do you think, then, that people should rather go scouring about individually, in private families, to find their Sunday-school scholars, in order to use a wiser discrimination in the bestowal of their Christmas gifts?"

"Yes, and no. What I do mean is, that in a mixed school, such as almost any rural church gathers, there are always some children coming from homes where uncared-for sickness or extreme poverty make the bringing home of toys or trinkets an aggravation. Yet, neither the teacher of that child nor the superintendent of the school feels it his privilege or province to look into these conditions. Of course, in a well-organized state of church work, such as the church of England establishes everywhere, and also the larger churches in our own cities, there is other provision for such cases, but here, and in all similar localities, the Sunday-school is the only recognized medium between the church and such people as those to whom the church would wish to render actual help or substantial comfort."

"I think," said Mrs. Brent, "I catch Miss Lane's idea, but I don't think this is really the fault of the Sunday-school or its workers."

"Nor do I, but I think we all depend too much on these mediums; we are apt to satisfy ourselves with doing what they require of us, and leaving the rest to take care of itself. No doubt there are many private charities that we never know anything of in such a community as this, but they seem to me not such as call for vigilance or self-denial from our younger workers in the church or community."

"Well, I vote for reform," exclaimed Samuel, with real boyish vehemence.

"As I haven't the privilege of voting yet, I will work for a reform," added Jennie.

"What say you, Miss Lane, will you lead the way?"

"I think," said Miss Lane, "we shall have to wait for a different leading, but I will gladly buckle into the harness with you, if there is an opening for us, which is really the leading we must look for."

"I'll pounce on the most forlorn child I see next Sunday, and ask him, or her, whether there is any one sick or in distress at home. Will that do for a beginning?"

"I guess I wouldn't, Sammy, but just keep your eyes about you—it will come."

"Is it to be an it? I thought it was suffering humanity we were after."

"I meant the opportunity; but what do you make of suffering humanity but an it?"

"Ah well, I wonder what shape it will come in! Anyhow, I long for action!"

"And I look for reaction," mildly suggested Jennie.

Very soon after this Mr. Brent brought from the post-office a letter addressed to Elizabeth Oasing, in his care, but as he knew their servant (for they had only one) by the name of Leesha, he was at a loss to know for whom it was meant, not suspecting this to be the Dutch abbreviation of Elizabeth.

Mrs. Brent, however, was better posted and carried the letter to her, but was surprised to see tears start from her eyes as she took it—Leesha being a very reserved and undemonstrative individual. She had lived with the Brents several months, yet they knew little or nothing about her, except her eminently good qualities as a servant; she literally minded her own business.

Later in the evening one of the children, who had gone for something to the kitchen, reported Leesha as "crying for dear life."

There had been so little sympathy established between Leesha and the family, owing to her evident desire to be "let alone," that Mrs. Brent was naturally reluctant to interfere even with her troubles, which she was aware must have come through that letter; but it was not in her kindly nature to hesitate long, and perhaps she had a glimmering of hope that this might prove an opening by which to reach the poor girl's inner self, which she was satisfied was good, only hard to reach.

She accordingly went out, and, by a little tact and tenderness, soon won poor Leesha to open her heart, so evidently overburdened. From the disappointed and considerably mixed account of her grief, Mrs. Brent gathered that this letter was from her old grandfather, begging Leesha to come to him and the grandmother, as they were in sore need of her to make them comfortable for the winter; stating that they were suffering from cold and miserable food, besides the constant sense of "being in the way." Leesha, after showing her the letter, told Mrs. Brent that about four years previous her father died, leaving these, his parents, to her special care, having years before prevailed upon them to give him the title of their place, thus securing it in the future against claims from a vagabond brother; and in return pledging himself for their maintenance the rest of their lives. The agreement was happily carried out both on her father and mother's part as long as he lived, but in an unnaturally short time after his death her mother, evidently a simple-minded, amiable kind of a woman, was persuaded into marrying a man of altogether a different stamp and nationality, thus making it almost impossible that he should sympathize with the hitherto amicable arrangement, or at all accept the situation. Whether he was an altogether bad man it was hard to judge from Leesha's account, but he looked upon the poor helpless old people as an incubrance, and Leesha and her two younger brothers, no doubt, made the matter worse by their manner of resenting not only the treatment of their grand-parents, but what they felt to be an intrusion, his own coming among them. Friends who saw the trouble and would willingly have helped them out if they could have done so, advised them not to resort to law, as this would only deprive them all of a home-roof, without sufficient means to maintain them from the proceeds. Leesha had therefore been persuaded to trust the old people to the care of her mother, but with many misgivings, while she went out to earn the means of adding to their personal comforts. The boys also sought homes elsewhere, and thus hoped soon to be able to help Elizabeth in her great undertaking. Bravely had the poor girl put her shoulder to the wheel, and, with scarcely a thought in common with other girls of her age, provided only the plainest of clothing for herself, and carried all the rest of her earnings home to devote to the sacred charge left her by her father.

Mrs. Brent, of course, did her best to comfort poor Leesha, at the same time reminding her of the tendency of old people to be dissatisfied with even the best of care, and therefore things might not be quite as bad as she feared with them. But Leesha resented this suggestion, and loyally held to the conviction that all the blame lay between her mother and "that man."

When she returned to the sitting-room Mrs. Brent, of course, laid the poor girl's case before her husband and the rest of the family, and when they were all warmed up into full tide of sympathy and indignation, Samuel blurted out: "That's it! That's it, Miss Lane! now we've got our leading; we'll all go down Christmas with a sleigh-load of things and walk in upon them in the most approved English style."

Jennie caught at the idea and forthwith began to plan what she could make or do for this purpose; even the little ones had an offering of nuts and apples to throw in, and with the impetuosity of youth would have overhauled the premises that night to see what all was available for their purpose.

When this laudable excitement had subsided, older and wiser heads began to consider the matter. There was a suggestion that they should be brought to "Tanglewood"—the Brents' home—to be cared for during the winter, but there were manifest objections to this. Mr. Brent was besought by them all to go down and make "that man" behave himself, until he promised at last to go over and see for himself what their condition really was. He was a man of prompt action, and "no sooner said than done" was true of most things he decided upon. Accordingly he surprised Leesha the next morning by telling her he was going in the direction of her home, and if she wished he would take her with him; but, true to her instincts, she could not consent to go, because it was ironing-day, and the clothes all sprinkled down, but if he would just stop in and see how it

was, and carry a bundle of things she had been making up for them, she would be so glad. This was probably better, as Mr. Brent would be able perhaps to observe more correctly the condition of things than when they were under the excitement of her presence.

To Mr. Brent's keen eye the premises showed many indications of former care and thrift, but there were unmistakable evidences of the lack of it at present. Even the wood-pile, or rather the place where the wood-pile might be expected, showed there was no provision for comfort in that line, although the day was raw and cold, while at a little distance he also saw what he supposed to be Elizabeth's mother, dragging some bushes that no doubt were the trimmings of the wood-cutting in a field some distance off. He knocked at the door, and entered in response to a "walk in" from the inside, to find a feeble looking old man sitting over a stove that gave no appreciable heat, and the old woman beside the cradle, where she was amusing the baby, at the same time trying to keep it covered from the cold.

The truth of their complaints was plain enough; he had no need to ask questions; their delight over the package of doughnuts Mrs. Brent had sent with Elizabeth's bundle showed more than mere fondness for goodies. Hunger looked out from their longing eyes, yet they refrained from eating, out of respect for Mr. Brent's presence, until he bade them do so, in order, as he said, to tell his wife how they liked them.

Elizabeth's mother did not appear for some time, and Mr. Brent heard her in the meanwhile chopping the brush she had lugged so far. He therefore took this opportunity to tell the old people of Leesa's distress over their letter, and to draw from them, if possible, how they thought she could benefit them by coming there. They had no clear idea themselves what good she could do, more than she was already doing by sending the fruits of her earnings; yet, with the yearning of childhood for the mere presence of parents, these old people seemed to think she could better things generally if only she was there. There was very little fault-finding in regard to any one, but the one and refrain so often on the lips of the old and helpless—"We are so in the way here."

Elizabeth's mother finally came in with an air of this apology for wood she had so labored over, and with a downcast look and slight recognition of Mr. Brent. After the old man explained who he was and his relation to Leesa, she proceeded to mend the remnant of fire kept alive till now only by the ashes. Nor did she once ask after her own daughter, as if she was conscious of having cut herself off from all interest in the other party by her relation to "that man," who was their common enemy.

(Conclusion in next No.)

Maryland County Agricultural Societies.

FREDERICK.—The following officers have been elected for 1882: President, Eugene L. Derr; Vice-President, Major A. T. Snauffer; Treasurer, Calvin Page; Secretary, Frederick A. Markey; Corresponding Sec. J. Wm. Baughman; Marshal, John T. Best.

The financial exhibit for 1881 shows the receipts to have been \$6,961.95 and the disbursements \$6,642.93, leaving a net surplus of \$319.02, after the payment of a deficiency \$924 from the previous years. October 10, 11, 12 and 13 is the time fixed upon for holding the next annual exhibition.

WASHINGTON.—The gentlemen named below have been elected officers for the current year.

President, C. W. Humrichouse; Vice-President, Wm. Updegraff; Recording Secretary, P. A. Wiltmer; Corresponding Secretary, John L. Biklo; Treasurer, B. F. Fiery; Directors, B. P. Rench, Elias Emmert, Dr. John T. Grimes, H. A. McComas, George W. Harris, John W. Stonebraker, C. F. Manning, J. B. Bausman.

The old Fair Grounds have been sold to Alex. Armstrong, for the sum of \$3,150, and their sale leaves the Society in a most excellent condition financially.

BOUND VOLUMES.—We can supply sets of THE AMERICAN FARMER, for several years back, neatly and strongly bound, at \$2 per volume or \$2.50 by mail.

NEARLY five hundred thousand immigrants from Europe arrived in this country in the year ending June 30, 1881, and the number for 1882 will probably be greater.

Baltimore Markets—January 13.

Breadstuffs.—Flour.—The market quiet. We quote as follows: Howard Street Super \$4 25@5 00; do Extra 5 25@6 35; do Family 6 40@7 00; Western Super 4 25@5 00; do Extra 5 25@6 35; do Family 6 40@7 00; City Mills Super 4 50@5 25; do Extra 5 50@6 25; do Elite brands Extra 7 00; Winter Wheat Patent Family 7 00@8 00; Fine 3 75@4 00; Rye Flour 5 00@5 25; Baltimore Pearl Hominy 4 75; Grits 5 00; Corn Flour 5 00; Corn Meal per 100 lbs 1 60.

Wheat.—The market was inactive and very steady. We quote: Cash \$1.39 1/2@1.39 1/2; January 1.39 1/2@1.40; February 1.41 1/2@1.41 1/2; March 1.43 1/2@1.44 1/2; April 1.45 1/2@1.45 1/2; Southern Fruits 1.40@1.42; Southern Long Berry 1.43@1.45.

Corn.—Very quiet. We quote: Cash 67 1/2@68; January 67 1/2@68; February 68 1/2@69; March 70 1/2@70 1/2; Steamer 68 1/2; Southern White 76 1/2@76 1/2; Southern Yellow 70.

Oats.—In limited demand. We quote: Western mixed 50 1/2@51; do bright 51 1/2@52; do white 53; Pennsylvania 50 1/2@51; Southern 50 1/2@51.

Rye.—The market is bare of stock, and the quotations are nominal at 95@100 cts., the latter for prime clear samples.

Mill Feed.—The inquiry is quite regular and the market firm at \$20@21 per ton for Western, and \$24 for City Mills.

Hay and Straw.—Supply of hay liberal, and the demand is light, especially for inferior lots. Straw is wanted. We quote as follows: Cecil county Timothy \$20@22; Maryland and Pennsylvania Timothy \$16@18; New York and Western \$16@18 for large and \$17@19 for small bales, mixed \$14@16, and Clover \$15@17 per ton. Straw is quoted at \$9@11 for wheat, \$11@12 for oat, \$16@18 for long rye, and \$14 for short do.

Clover Seed.—Steady and firm. Pennsylvania is quoted at 70 1/2@71 cts. per pound, the latter for very prime, and prime Western at 8 1/2@8 3/4 cts.

Provisions.—Generally quiet and the speculation is lower. We quote packed lots as follows: Bulk Shoulders, packed, 7 1/2 cts; do L. C. Sides do 9 1/2 cts; C. R. Sides do 9 1/2 cts; Bacon Shoulders do 8 1/2 cts; do C. R. Sides do 10 1/2 cts; do Hams, sugar-cured, new, 12 1/2@13 1/2 cts; do Shoulders do 9 1/2 cts; do Breasts do 10 1/2 cts; Lard, refined, tierces, 12 1/2 cts; Mess Pork, 7 bbl, new \$18 25; do old \$17 25.

Cheese.—The tone of the market is firm, especially on attractive stock, which is comparatively scarce. We quote as follows: New York State cheese 13 1/2@14 cts; do good to prime 12 1/2@13 cts; Western, choice 13 1/2@14 cts; do good to prime 12 1/2@13 cts; do common 9@9 1/2 cts.

Butter.—The receipts of choice table stock are moderate and the market is steady with a good demand. We quote as follows: New York State new, choice, 32@34 cts; Creamery, fancy, 45@48 cts; do prime to choice, 40@43 cts; Old selections, 35@40 cts; do dairies, 31@36 cts; N. W. dairy packed, choice, 26@28 cts; Western, choice, 25@28 cts; do good to prime, 20@23 cts; do Roll, choice, 28@30 cts; do do fair to good, 22@25 cts; do do common, 18@20 cts; Near-by receipts, 21@29.

Poultry.—The inquiry for good stock is quite brisk, and the market is steady at 10@12 cts. per lb. for Turkeys and 7@8 cts. for Chickens undrawn. Drawn stock is 1@2 cts. higher.

Dressed Pork.—The demand is moderate and the market is dull and easy at 7 1/2@7 3/4 per 100 lbs.

Eggs.—The stock is fully ample and the market is slow and dull at 23@25 cts. per dozen for fresh and 20@21 cts. for pickled.

Cotton.—Quiet and steady. The official quotations are as follows: Middling 11 cts; strict Low Middling 11 1/4 cts; Low Middling 11 1/4 cts; strict Good Ordinary 10 1/2 cts; Good Ordinary 10 1/2 cts; Ordinary 9 cts.

Wool.—Unwashed, per lb. 31@32 cts; tub-washed 30@31 cts; Merino, washed 33@34 cts; do unwashed 23@25 cts.

Domestic Dried Fruits.—Quiet and steady, with a fair business at current figures. We quote Cherries at 17 1/2@18 cts; Blackberries at 12@13 cts; Raspberries at 17@18 cts; Whortleberries at 13 1/4@14 cts; bright sliced Apples 6@6 1/2 cts; fair do 5 1/2@6 cts; bright quarters 5 1/2@5 1/2 cts; fair quarters 4 1/2@5 cts; fancy peeled Peaches 10@12 cts; choice do 10@11 cts; good to prime do 12@14 cts; halves Peaches unpeeled 7@7 1/2 cts; quarters do 6@6 1/2 cts.

Miscellaneous Produce.—We quote as follows for articles named: Apples, New York, per bbl. \$3 00@4 10; Potatoes, prime, per bus. \$1 15@1 20; Sweet Potatoes, per bbl. \$5 00@5 50; Onions, new, per bbl. \$2 00@3 00; Beeswax, per lb. 23@24 cts; Seneca Root, 1/2 lb. 60 cts; Ginseng, per lb. \$1 60; Virginia Snake, per lb. 20@25 cts; Feathers, prime, per lb. 50@55 cts.

Tobacco.—For Maryland leaf the market has been quiet and steady. Quotations are as follows: Maryland inferior and frosted at \$2 00@2 50; do sound common 4 00@5 00; do good common 6 00; do middling 6 00@8 00; do good and fine red 8 50@10 00; do fancy 10 00@14 00; upper country 4 00@10 00; do ground leaf 3 00@5 00; Ohio inferior to good common 3 00@4 00; do greenish and brown 4 00@6 00; do medium to fine red 6 00@8 00; do common spangled 6 00@7 00; do fine spangled and ye low 8 00@15 00; do air-cured medium to fine 6 00@12 00.

Live Stock.—Of Cattle.—The market was fairly active, with an advance on all grades of %c. We quote: Very best on sale this week 5 1/2@6 1/2 cts; that generally rated first quality 5 1/2@6 1/2 cts; medium or good fair quality 3 1/2@4 1/2 cts; ordinary thin Steers, Oxen and Cows 2 1/2@3 1/2 cts; extreme range of prices 2 1/2@6 1/2 cts; Most of the sales were from 5@6 cts. Milk Cows.—There is a fairly active demand for prime cows. We quote them \$45@55 per head. We have no quotations for common cows. Hogs.—We quote at 7 1/2@9 1/2 cts. Sheep and Lambs.—We quote prices at 2 1/2@3 cts, as to quality, few selling at the latter price. Lambs 4@6 cts. Common sheep are dull.

He Spoke From Experience.

BUCHANAN, Ga., July 5, 1881.

H. H. WARNER & Co.: Sirs—I have been taking your Safe Kidney and Liver Cure for Bright's Disease, and find it the best I ever saw or heard of. DAVID BOWLING.

MADE FROM HARMLESS MATERIALS, and adapted to the needs of fading and falling hair. Parker's Hair Balsam has taken the first rank as an elegant and reliable hair restorative.

A Remarkable Statement.

The Unusual Experience of a Prominent Man Made Public.

The following article from the *Democrat and Chronicle*, of Rochester, N. Y., is of so striking a nature, and emanates from so reliable a source, that it is herewith re-published entire. In addition to the valuable matter it contains, it will be found exceedingly interesting.

To the Editor of the *Democrat and Chronicle*: Sir:—My motives for the publication of the most unusual statements which follow are, first, gratitude for the fact that I have been saved from a most horrible death, and, secondly, a desire to warn all who read this statement against some of the most deceptive influences by which they have ever been surrounded. It is a fact that to-day thousands of people are within a foot of the grave and they do not know it. To tell how I was caught away from just this position and to warn others against nearing it, are my objects in this communication.

On the first day of June 1881, I lay at my residence in this city surrounded by my friends and waiting for death. Heaven only knows the agony I then endured, for words can never describe it. And yet, if a few years previous, any one had told me that I was to be brought so low, and by so terrible a disease, I should have scoffed at the idea. I had always been uncommonly strong and healthy, had weighed over 200 pounds and hardly knew, in my own experience, what pain or sickness were. Very many people who will read this statement realize at times that they are unusually tired and cannot account for it. They feel dull and indefinite pains in various parts of the body and do not understand it. Or they are exceedingly hungry one day and entirely without appetite the next. This was just the way I felt when the relentless malady which had fastened itself upon me first began. Still I thought it was nothing; that probably I had taken a cold which would soon pass away. Shortly after this I noticed a dull, and at times neuralgic pain in my head, but as it would come one day and be gone the next, I paid but little attention to it. However, my stomach was out of order and my food often failed to digest, causing at times great inconvenience. Yet I had no idea, even as a physician, that these things meant anything serious or that a monstrous disease was becoming fixed upon me. Candidly, I thought I was suffering from Malaria and so doctored myself accordingly. But I got no better. I next noticed a peculiar color and odor about the fluids I was passing—also that that there were large quantities one day and very little the next, and that a persistent froth and scum appeared upon the surface, and a sediment settled in the bottom. And yet I did not realize my danger, for, indeed, seeing these symptoms continually, I finally became accustomed to them, and my suspicion was wholly disarmed by the fact that I had no pain in the affected organs or in their vicinity. Why I should have been so blind I cannot understand.

There is a terrible future for all physical neglect, and impending danger usually brings a person to his senses even though it may then be too late. I realized, at last, my critical condition and aroused myself to overcome it. And oh! how hard I tried! I consulted the best medical skill in the land. I visited all the prominent mineral springs in America and traveled from Maine to California. Still I grew worse. No two physicians agreed as to my malady. One said I was troubled with spinal irritation; another, nervous prostration; another, malaria; another, dyspepsia; another, heart disease; another, general debility; another, congestion of the base of the brain; and so on through a long list of common diseases, the symptoms of all of which I really had. In this way several years passed, during all of which I was steadily growing worse. My condition had really become pitiable. The slight symptoms I at first experienced were developed into terrible and constant disorders—the little twigs of pain had grown to oaks of agony. My weight had been reduced from 207 to 130 pounds. My life was a torture to myself and friends. I could retain no food upon my stomach, and lived wholly by injections. I was a living mass of pain. My pulse was uncontrollable. In my agony I frequently fell upon the floor, convulsively clutched the carpet, and prayed for death. Morphine had little or no effect in deadening the pain. For six days and nights I had the death premonitory hiccoughs constantly. My urine was filled with tube casts and albumen. I was struggling with Bright's Disease of the Kidneys in its last stages.

While suffering thus I received a call from my pastor, Rev. Dr. Foote, rector of St.

Paul's Church, of this city. I felt that it was our last interview, but in the course of conversation he mentioned a remedy of which I had heard much but had never used. Dr. Foote detailed to me the many remarkable cures which had come under his observation by means of this remedy, and urged me to try it. As a practicing physician and a graduate of the schools, I cherished the prejudice both natural and common with all regular practitioners, and derided the idea of any medicine outside the regular channels being the least beneficial. So solicitous, however, was Dr. Foote, that I finally promised I would waive my prejudice and try the remedy he so highly recommended. I began its use on the first day of June and took it according to directions. At first it sickened me; but this I thought was a good sign for one in my debilitated condition. I continued to take it; the sickening sensation departed and I was able to retain food upon my stomach. In a few days I noticed a decided change for the better as also did my wife and friends. My hiccoughs ceased and I experienced less pain than formerly. I was so rejoiced at the improved condition that, upon what I had believed but a few days before was my dying bed, I vowed, in the presence of my family and friends, should I recover I would both publicly and privately make known this remedy for the good of humanity, wherever and whenever I had an opportunity. I also determined that I would give a course of lectures in the Corinthian Academy of Music of this city, stating in full the symptoms and almost hopelessness of my disease and the remarkable means by which I have been saved. My improvement was constant from that time, and in less than three months I had gained 26 pounds in flesh, became entirely free from pain and I believe I owe my life and present condition wholly to Warner's Safe Kidney and Liver Cure, the remedy which I used.

Since my recovery I have thoroughly investigated the subject of kidney difficulties and Bright's disease, and the truths developed are astounding. I therefore state, deliberately, and as a physician, that I believe MORE THAN ONE HALF OF THE DEATHS WHICH OCCUR IN AMERICA ARE CAUSED BY BRIGHT'S DISEASE OF THE KIDNEYS. This may sound like a rash statement, but I am prepared to fully verify it. Bright's Disease has no distinctive symptoms of its own, (indeed, it often develops without any pain whatever in the kidneys or their vicinity,) but has the symptoms of nearly every other known complaint. Hundreds of people die daily, whose burials are authorized by a physician's certificate of "Heart Disease," "Apoplexy," "Paralysis," "Spinal Complaint," "Rheumatism," "Pneumonia," and other common complaints, when in reality it was Bright's Disease of the Kidneys. Few physicians, and fewer people, realize the extent of this disease or its dangerous or insidious nature. It steals into the system like a thief, manifests its presence by the commonest symptoms, and fastens itself upon the constitution before the victim is aware. It is nearly as hereditary as consumption, quite as common and fully as fatal. Entire families, inheriting it from their ancestors, have died, and yet none of the number knew or realized the mysterious power which was removing them. Instead of common symptoms it often shows none whatever, but brings death suddenly, and as such is usually supposed to be heart disease. As one who has suffered and knows by bitter experience what he says, I implore every one who reads these words not to neglect the slightest symptoms of Kidney difficulty. Certain agony and possible death will be the sure result of such neglect, and no one can afford to hazard such chances.

I am aware that such an unqualified statement as this, coming from me, known as I am throughout the entire land as a practitioner and lecturer, will arouse the surprise and possible animosity of the medical profession and astonish all with whom I am acquainted, but I make the foregoing statements based upon facts which I am prepared to produce and truths which I can substantiate to the letter. The welfare of those who may possibly be sufferers such as I was, is an ample inducement for me to take the step I have, and if I can successfully warn others from the dangerous path in which I once walked, I am willing to endure all professional and personal consequences.

J. B. HENTON, M. D.

Rochester, N. Y., Dec. 30, 1881.

MANY MISERABLE PEOPLE drag themselves about with failing strength, feeling that they are steadily sinking into their graves when, by using Parker's Ginger Tonic, they would find a cure commencing with the first dose, and vitality and strength surely coming back to them. See another column.

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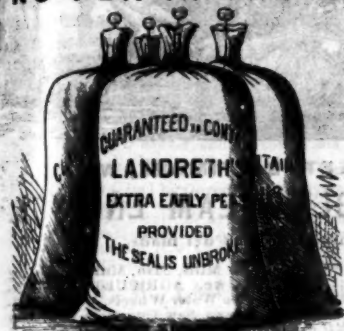
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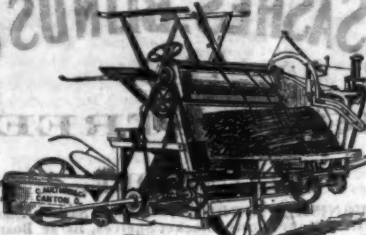
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